

Student Name \_\_\_\_\_  
Teacher Name \_\_\_\_\_  
School \_\_\_\_\_  
System \_\_\_\_\_

# MAAS



# TENNESSEE

## Tennessee Comprehensive Assessment Program Modified Academic Achievement Standards ~ Grade 4 Practice Test Version B



**PEARSON**

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# Introduction

## What is the TCAP Modified Academic Achievement Standards Test?

The TCAP Modified Academic Achievement Standards Test is a multiple-choice test designed to measure student achievement in certain skills in four content areas: Reading/Language Arts, Mathematics, Science, and Social Studies. The questions in this practice test are examples of items used in the actual test.

## What are the questions testing?

Questions are written to test student performance in state content standards. The State Content Standards and Performance Indicators were developed by the Tennessee Department of Education. These Standards and Performance Indicators are listed on the State Department of Education Web site at <http://www.state.tn.us/education/curriculum.shtml>.

## Who is eligible to be tested?

1. Students with a disability who are on an active IEP are eligible to take the MAAS.
2. Eligible students may have a disability in any of the Federal disability categories.  
Note: The category Functionally Delayed is a State category, but a student cannot be excluded from participation in this assessment based on category of disability. A student whose disability is classified as Functionally Delayed is eligible to participate in this assessment if determined eligible by the IEP team, but the student will be considered a non-participant and his scores cannot be counted for AYP. **A student classified as Functionally Delayed taking the test would not count toward the 2% cap because he is considered a non-participant.**
3. It is the decision of the IEP team whether or not a student with a disability should be assessed with the MAAS.

## How long will the tests take?

The length of the tests will vary, depending on the grade level. The time limits are generous and allow most students time to finish. Extended time limits only apply to students who are eligible for special or English Language Learner (ELL) accommodations.

## How will the tests be scored?

The test answers will be machine scored. Results from the test provide information about how well students performed on the content being tested.

**May calculators be used?**

Calculators may be used on Part 1 and 2 of the mathematics portion of the TCAP Modified Academic Achievement Standards Test (grades 3–8) as per system policy.

**Which test accommodations may be used?**

The TCAP Modified Academic Achievement Standards Test may be administered using various procedures that are used during the student’s daily educational program. Certain conditions must be met for students to be eligible for special and ELL accommodations.

**What is the purpose of the practice test?**

In a classroom learning session, these questions can be used to prepare students for the actual test. Teachers can use the practice test to help familiarize students with the format of test questions and how the actual test will be administered. This practice test can also be used to inform parents of the type of test their children will be taking.

**Here are some tips for preparing students for the test.**

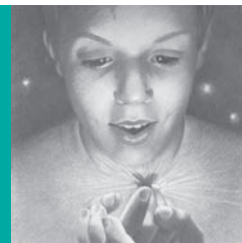
Remind students to:

**Relax:** It is normal to be somewhat anxious before the test. Remember that the score is only one of a number of measures of performance.

**Listen:** Listen to and read the test directions carefully.

**Plan Use of Time:** First, answer all the questions you are sure about. Do not spend too much time on any one question. If a question seems to take too long, skip it and return to it later if you have extra time.

**Pause and Think:** If you are not sure how to answer a question, carefully read it again. Rule out answer choices that you know are incorrect and then choose from those that remain.



**Directions** Read this story from the country of Liberia. Then answer Numbers 1 through 8.

### Sia and the Spider

- 1 Once there was a young girl named Sia. She lived in a small village. Sia was the best at finding delicious food in the forest.
- 2 Spider was different than Sia. He was greedy. One day, Spider tried to trick Sia, but he did not know that Sia was very clever.
- 3 “Please show me where you get your food,” Spider said to Sia.
- 4 “Hmm . . .” Sia said carefully.
- 5 “Please?” begged Spider.
- 6 “If you can keep a secret,” said Sia, “I’ll take you to the juiciest oranges.”
- 7 “I can keep a secret!” cried Spider. Spider was excited.
- 8 When they reached the orange tree, Spider’s eyes opened wide. The oranges were so ripe that the branches hung to the ground! Quickly, Spider ate all the oranges on the tree. There was nothing left for Sia, and Spider did not even thank her.
- 9 Then Sia said, “If you can keep another secret, I’ll show you the biggest bananas!”
- 10 Spider rubbed his full belly. *Sia is foolish!* Spider thought to himself. “I can keep a secret!” he promised.
- 11 At last, Sia and Spider reached the banana tree. The bananas looked yummy! Spider hurriedly ate all the bananas on the tree without even thanking Sia.

*Go On ►*

12 Then Sia said, “If you can keep a secret, I’ll lead you to the sweetest  
honey in the world!”

13 Spider grinned and rubbed his belly, which was beginning to swell.  
Although his stomach was full, he said, “I can keep a secret!”

14 Sia pointed and said, “Inside that tree is the best honey you will ever  
taste!”

15 As Sia expected, Spider crawled inside the tree and gobbled all the  
honey.

16 “That was tasty!” said Spider, patting his full belly. Then Spider tried  
to crawl out of the tree.

17 “Help me! I’m stuck!” cried Spider.

18 Sia grinned at Spider. She knew this would happen after everything  
that Spider ate.





19 “Please help me,” begged Spider. “I’m sorry! I used you to get good food.”

20 “Yes, you did,” said Sia. “And now you must stay in the tree until your greedy belly becomes thin enough for you to squeeze out of the hole.”

21 Spider sobbed. Sia did not seem so foolish anymore.

22 Sia spent the rest of the day collecting fresh fruits from other trees. On her way back to the village, she stopped by the honey tree. Spider’s belly was thinner now, so Sia helped him crawl out of the tree.

23 When they returned to the village, Spider said, “Thank you for showing me where to find good fruits and honey, Sia.” Sia finally got her thank you, and Spider was never greedy again.

**1 Read this sentence from Paragraph 13.**

Spider grinned and rubbed his belly, which was beginning to swell.

**Which word means the opposite of the underlined word?**

- A** hurt
- B** rise
- C** shrink

**2 Which sentence from the story best shows that Spider is greedy?**

- F** When they reached the orange tree, Spider’s eyes opened wide.
- G** Spider hurriedly ate all the bananas on the tree without even thanking Sia.
- H** She knew this would happen after everything that Spider ate.

*Go On ►*

**3** Which event happens before Sia shows Spider the banana tree?

- A** Spider asks Sia to show him where she found food.
- B** Sia shows Spider where to find the best honey.
- C** Sia leaves Spider to wait in a tree until he shrinks.

**4** Most of the story takes place in

- F** the forest.
- G** the honey tree.
- H** the village.

**5** What is the main problem in the story?

- A** Sia tells Spider a secret.
- B** Spider tries to trick Sia.
- C** Sia thinks Spider is foolish.

**6** How does the reader know that Sia is kind?

- F** She gives Spider the food she collected.
- G** She helps Spider crawl out of the honey tree.
- H** She tells Spider about her village.

**7** Which lesson does Spider learn in this story?

- A** Taking more than is needed can cause trouble.
- B** Keeping secrets can lead to big rewards.
- C** Learning to do something well takes practice.

**8** When Spider looks for fruit in the future, he will most likely

- F** learn to find fruit alone.
- G** hide the fruit that he finds.
- H** leave some fruit for others.

*Go On ►*

**Directions**

Nancy wrote this book report. It contains mistakes. Read the report and answer Numbers 9 through 14.

1     *Hillary and the Hedgehog* is a great book. Beth Chen wrote the book. It is a book that many people will enjoy.

2     Hillary is nine years old. She visits her grandmother every summer. Hillary likes to visit her grandmother, but she misses her friends.

3     One day, Hillary decides to pick some blueberries for her grandmother. Her grandmother lives in a small, yellow house. While picking the berries, Hillary sees that many of them have been eaten. She looks under a blueberry bush. She sees a little round hedgehog hiding under the bush. It has a long nose, small ears, and dark eyes.

4     Hillary remembers what she knows about hedgehogs. They grunt when they are happy. They sniffle when they are upset. Hillary thinks this hedgehog sounds like it has a cold. It seems scared.

5     She brings it food to eat. Hillary decides to care for the hedgehog. She names the hedgehog “Blueberry.” She also brings it water to drink. It does not seem so frightened. Hillary does not feel as lonely anymore.

6     At the end of the book, Hillary does not want to leave her new friend. She is happy when she sees two more hedgehogs under the bushes. Hillary thinks that these hedgehogs must be Blueberry’s parents. She knows that Blueberry will be just fine in the garden.

7     I like this book. It tells about a new friendship. When I finished reading the book, I wanted to learn more about hedgehogs.

**9** Read this sentence from Paragraph 1.

It is a book that many people will enjoy.

Choose the correct way to write the underlined words as a contraction.

- A** Its'
- B** It's
- C** I'ts

**10** Read these sentences from Paragraph 5.

1. She brings it food to eat.
2. Hillary decides to care for the hedgehog.
3. She names the hedgehog "Blueberry."
4. She also brings it water to drink.

Choose the best order for the sentences.

- F** 2, 1, 4, 3
- G** 2, 4, 3, 1
- H** 2, 4, 1, 3

*Go On ►*

**11 Read Paragraph 6.**

At the end of the book, Hillary does not want to leave her new friend. She is happy when she sees two more hedgehogs under the bushes. Hillary thinks that these hedgehogs must be Blueberry's parents. She knows that Blueberry will be just fine in the garden.

Which sentence can best be added to the paragraph?

- A** Hillary leaves to go back home and takes Blueberry with her.
- B** Hillary watches Blueberry play with the other hedgehogs.
- C** Hillary gives Blueberry to the neighbor who lives behind her grandmother.

**12 Nancy decides to add a chart to her book report. The chart has information she learned about hedgehogs from reading the book. Read the chart.**

How a Hedgehog Looks	How a Hedgehog Acts
<ul style="list-style-type: none"><li>• long nose</li><li>• small ears</li><li>• _____</li></ul>	<ul style="list-style-type: none"><li>• grunts when happy</li><li>• snuffles when upset</li><li>• eats berries</li></ul>

Which phrase best completes the chart?

- F** dark eyes
- G** drinks water
- H** hides under bushes

**13** Which word from the book report is not a compound word?

- A** grandmother
- B** blueberries
- C** frightened

**14** This book report would be most interesting to someone who

- F** enjoys growing blueberries in a garden.
- G** reads books about summer vacations.
- H** likes stories about people and animals.

*Go On ►*

**Directions** Read the passage and answer Numbers 15 through 23.

## The History of Tooth Care

- 1 In ancient times, toothaches were serious problems. When people needed to ease tooth pain, they had two choices. They could grind their teeth using sharp rocks called flints, or they could pull the teeth out.
- 2 Fortunately, people living long ago did not have as many problems with their teeth as people do today. They did not have as many cavities or as much tooth decay because their diets were healthful. They ate fruits, nuts, and plants. Sometimes they ate meat. They did not eat much sugar.
- 3 Even though foods today have more sugar, people have more tools to keep teeth healthy. These tools took thousands of years to develop.

### Toothbrushes

- 4 The earliest toothbrush was not a brush at all. It was a twig, or small stick. It was used to poke between teeth to remove any trapped food. The end of the twig was also chewed. Chewing the twig turned the end into bristles. These bristles could then be rubbed on the surfaces of the teeth.
- 5 These teeth-cleaning twigs have been found around the world. They were used by people in the area that is now Iraq. People in Egypt used these twigs around 3500 B.C.E. People in China, Africa, and South America also used twigs to clean their teeth.
- 6 People in China began making actual toothbrushes around the 1500s. They used the stiff hair of pigs to make the toothbrushes. In the 1800s, people in Europe also made toothbrushes with pig hair. Some toothbrushes were even made from horsehair or bird feathers. The type of toothbrush used today was not invented until 1938. The electric toothbrush was first used in the United States in the 1960s.

### Toothpaste

- 7 When toothpaste was invented, it was actually a powder. Ancient people from Egypt ground up a mixture of salt, pepper, mint leaves, and flowers to use as tooth powder. The ancient people from China ground up flower petals and twigs for their tooth powder.



- 8 In the 1890s, toothpaste like we use today was sold in metal tubes. Around 1975, toothpaste began to be packaged in plastic tubes instead of metal tubes. A chemical called fluoride was added to toothpaste in the 1900s. Fluoride helps to prevent cavities.



Tools for a Healthy Mouth

### Floss

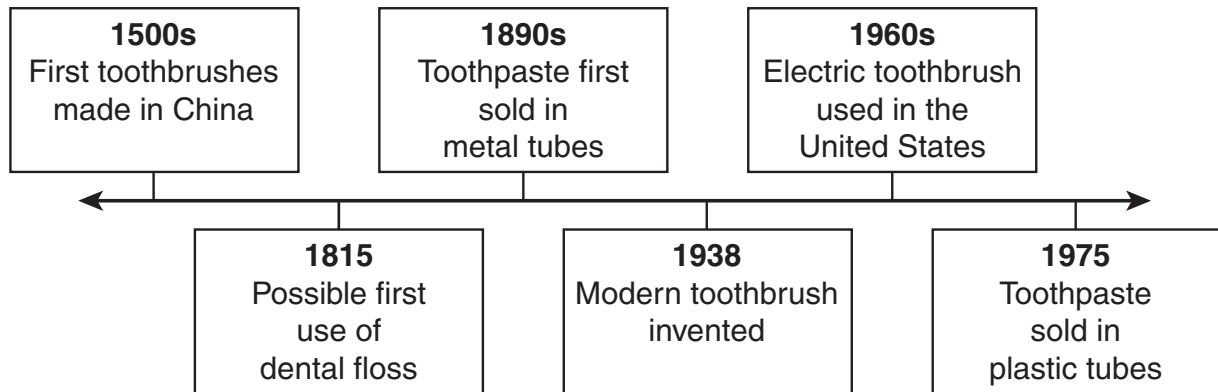
- 9 Historians researched how people have cleaned between their teeth. People may have been using dental floss as early as 1815. At first, the floss was made of silk. Today, dental floss is made from nylon or other materials.
- 10 People no longer need sticks to clean their teeth. Humans have many different items to keep their teeth healthy. People today can use great tools like electric toothbrushes and tasty toothpaste with fluoride. The best way to prevent tooth disease is eating well and brushing daily.

## 15 People who lived long ago prevented tooth disease by

- A** eating fruits, nuts, and plants.
- B** adding fluoride to their tooth powder.
- C** using dental floss made from nylon or other materials.

*Go On ►*

**16** Study this timeline.



**Which event occurred before toothpaste was packaged in plastic tubes but after the modern toothbrush was invented?**

- F** Possible first use of dental floss
- G** Toothpaste first sold in metal tubes
- H** Electric toothbrush used in the United States

**17** Under which heading should a student look to find information about fluoride?

- A** Toothbrushes
- B** Toothpaste
- C** Floss

**18** Read these steps based on the passage.

1. Rub the bristles on the surface of the teeth.
2. Use a twig to poke in between teeth to remove trapped food.
3. Chew the end of the twig to turn it into bristles.

Based on the information in the passage, what is the correct order for the steps?

**F** 2, 3, 1

**G** 3, 2, 1

**H** 1, 3, 2

**19** Maria is reading a book called *Healthy Teeth*. Where in the book should Maria look to see whether “The History of Tooth Care” is included?

**A** the glossary

**B** the table of contents

**C** the title page

**20** The picture at the end of the passage helps readers understand

**F** the amount of toothpaste to use on a toothbrush.

**G** how much floss is needed to clean between teeth.

**H** which objects are used to prevent tooth decay today.

*Go On ►*

- 21** Oscar wants to know how toothpaste is packaged. Which medium will best help Oscar learn this information?
- A** an online catalog selling different kinds of toothpaste
  - B** a video showing how to put toothpaste into tubes
  - C** a newspaper article about why toothpaste helps to prevent cavities
- 22** Which sentence from the passage contains an opinion?
- F** Even though foods today have more sugar, people have more tools to keep teeth healthy.
  - G** Some toothbrushes were even made from horsehair or bird feathers.
  - H** People today can use great tools like electric toothbrushes and tasty toothpaste with fluoride.
- 23** After reading the passage, Cara would like to learn more about inventions from ancient China. Which resource will best help Cara find this information?
- A** an online encyclopedia
  - B** an online thesaurus
  - C** an online atlas

**Directions**

Rodney wrote this report about his favorite bird. It contains mistakes. Read the report and then answer Numbers 24 through 31.

(1) Birds come in many different colors. (2) One bird has feathers that can change colors. (3) This bird is called a flamingo. (4) It is easy to recognize. (5) It has a thin neck, a curved pink and black beak, large wings, and short tail feathers.

(6) The legs allow the bird to stand in deep water to search for food. (7) Sometimes, the bird will even stand on one leg.

(8) A flamingo holds its head upside down in the water to eat. (9) It scoops muddy water into its beak. (10) Then it uses its fat tongue to push the water and mud out of its beak. (11) After the water is gone, small plants and animals are trapped inside, and the bird swallows them.

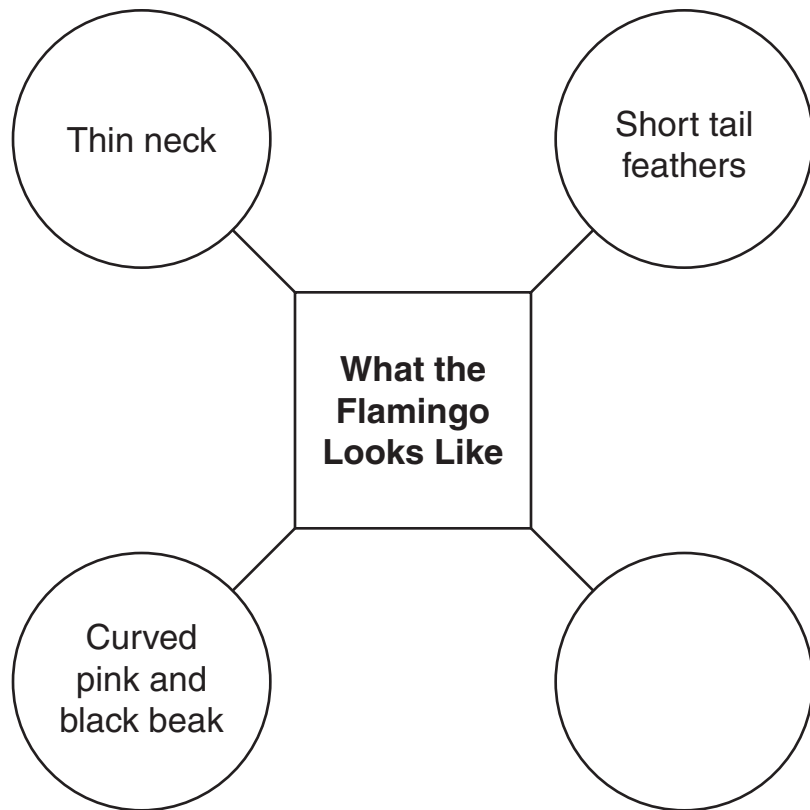
(12) The food that flamingos eat has special chemicals that make the birds' feathers change color. (13) The color depends on the type of food that can be found in the area where it lives.

(14) Flamingos live together in more larger groups, sometimes called colonies. (15) The birds act in an interesting way with one another. (16) They spread their wings while bending their necks and bowing. (17) Flamingos turn its heads from side to side. (18) They may march run and then fly away. (19) Scientists think that this is how the birds choose mates. (20) They call this behavior a dance.

(21) The flamingo is an interesting bird. (22) Its colors and habits makes it unusual. (23) The bird stands above the crowd, even on one leg!

*Go On ►*

**24** Look at this web based on the report.



Which information best completes the web?

- F** Stands in water
- G** Large wings
- H** Tiny tongue

**25** Read the second paragraph of this report.

(6) The legs allow the bird to stand in deep water to search for food. (7) Sometimes, the bird will even stand on one leg.

Choose the best topic sentence to add before Sentence 6.

- A** Flamingos have longer legs than most birds.
- B** Flamingos spend time in the water like ducks.
- C** Some people think flamingos are funny looking.

**26** Read Sentence 11.

After the water is gone, small plants and animals are traped inside, and the bird swallows them.

Which underlined word is not spelled correctly?

- F** gone
- G** traped
- H** swallows

*Go On ►*

**27** Read Sentence 12.

The food that flamingos eat has special chemicals that make the birds' feathers change color.

Which detail best supports this topic sentence?

- A** I think flamingos' feathers are very colorful.
- B** Flamingos have feathers that are different colors from other birds.
- C** Flamingos that eat pink foods like shrimp will have pink feathers.

**28** Read Sentence 14.

Flamingos live together in more larger groups, sometimes called colonies.

Choose the correct way to write the underlined words.

- F** large
- G** most larger
- H** largest

**29** Read Sentence 17.

Flamingos turn its heads from side to side.

Choose the correct word to replace its.

- A** your
- B** their
- C** his



**30** Read Sentence 18.

They may march run and then fly away.

**Choose the sentence that uses commas correctly.**

- F** They may march, run and then, fly away.
- G** They may march, run, and then fly away.
- H** They may march, run and, then fly away.

**31** Choose the best title for this report.

- A** Colonies of Birds
- B** Water Birds
- C** An Unusual Bird

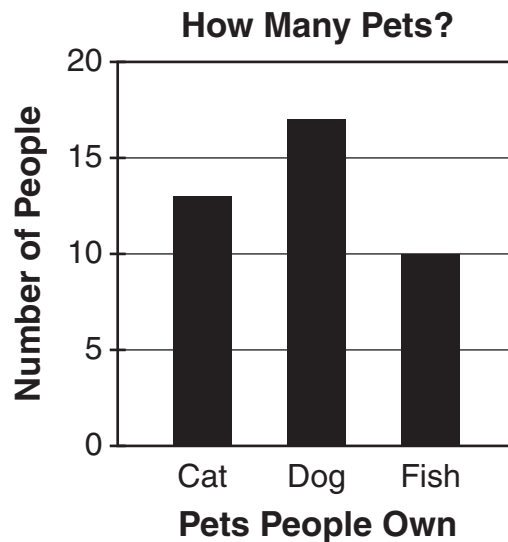
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**Directions** Read and answer Numbers 32 and 33.

**32** José wants to learn more about leopards. Which type of media would provide the most appropriate information?

- F** an online encyclopedia entry about leopards
- G** a website with pictures of leopards
- H** a television show about people who help leopards

**33** Anna made this bar graph of pets owned by people in her apartment building.



According to the bar graph, which type of pet do most people own?

- A** Cat
- B** Dog
- C** Fish

**STOP** 

**DO NOT  
MARK  
ON THIS  
PAGE**

## Part 2

**Directions** Read the poem. Then answer Numbers 34 through 38.

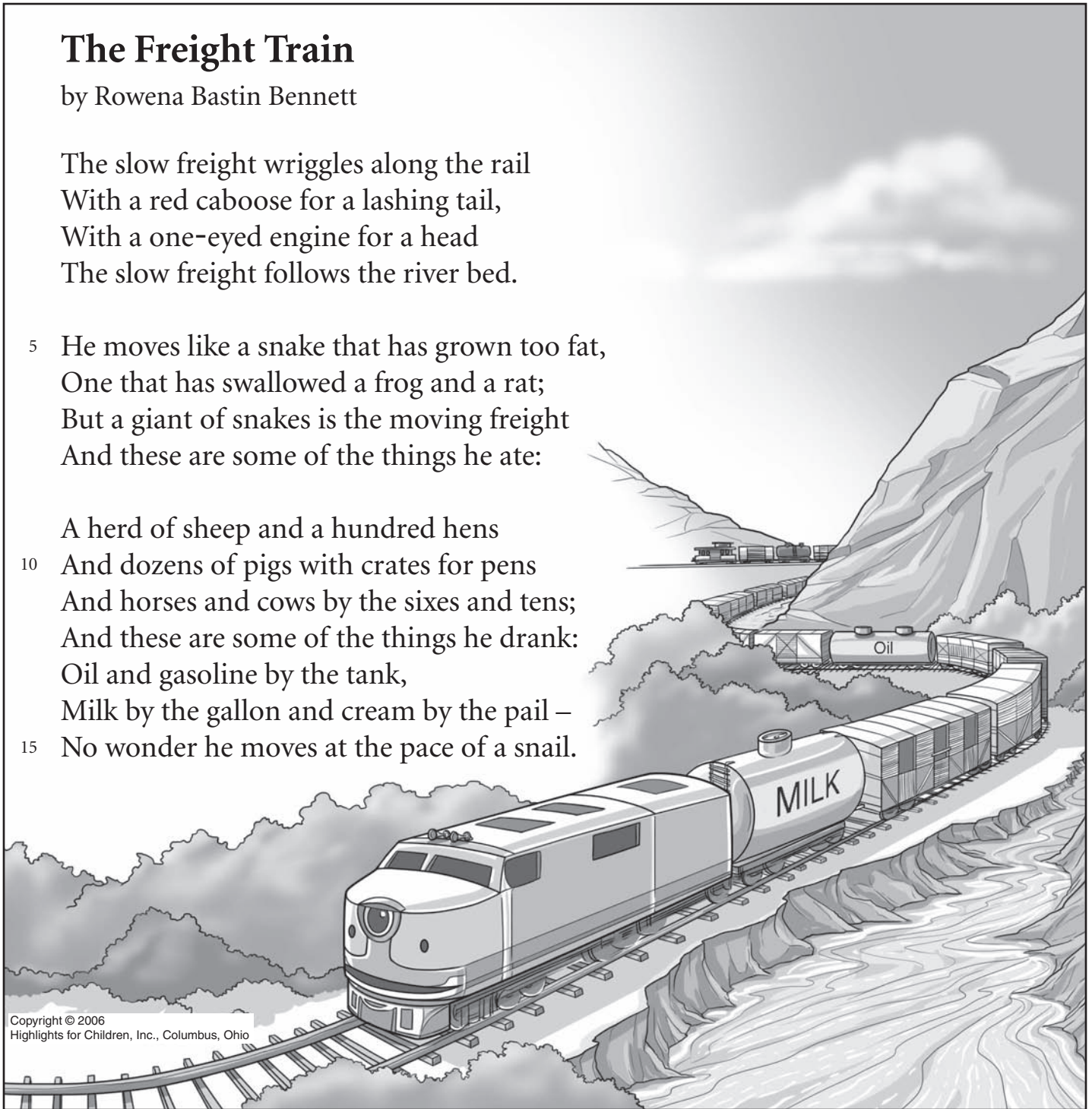
### The Freight Train

by Rowena Bastin Bennett

The slow freight wriggles along the rail  
With a red caboose for a lashing tail,  
With a one-eyed engine for a head  
The slow freight follows the river bed.

- 5 He moves like a snake that has grown too fat,  
One that has swallowed a frog and a rat;  
But a giant of snakes is the moving freight  
And these are some of the things he ate:

- A herd of sheep and a hundred hens  
10 And dozens of pigs with crates for pens  
And horses and cows by the sixes and tens;  
And these are some of the things he drank:  
Oil and gasoline by the tank,  
Milk by the gallon and cream by the pail –  
15 No wonder he moves at the pace of a snail.



**34** Read Lines 1 and 2.

The slow freight wriggles along the rail  
With a red caboose for a lashing tail,

What does lashing mean?

- F** stopping on and off
- G** pushing forward
- H** moving back and forth

**35** Which statement best shows that “The Freight Train” is a poem?

- A** It is missing a plot.
- B** It is written in stanzas.
- C** It uses descriptive words.

**36** Which line from the poem contains a simile?

- F** With a one-eyed engine for a head
- G** The slow freight follows the river bed.
- H** He moves like a snake that has grown too fat,

*Go On ►*

**37** Which phrase from the poem is an example of alliteration?

**A** a hundred hens

**B** sixes and tens

**C** pace of a snail

**38** The author wrote this poem most likely to

**F** entertain readers by describing a train.

**G** persuade more readers to travel by train.

**H** inform readers about how real trains work.

**Directions**

Jessie picked up this flier from a craft store. Read the flier and answer Numbers 39 through 47.



# Clay Time Fun



© Ivnnewerink/Dreamstime  
#12752192

Clay is usually found deep in the earth. Clay is often used to make art projects. Clay is fun because you can use it to make shapes like animals.

## How to Make Clay

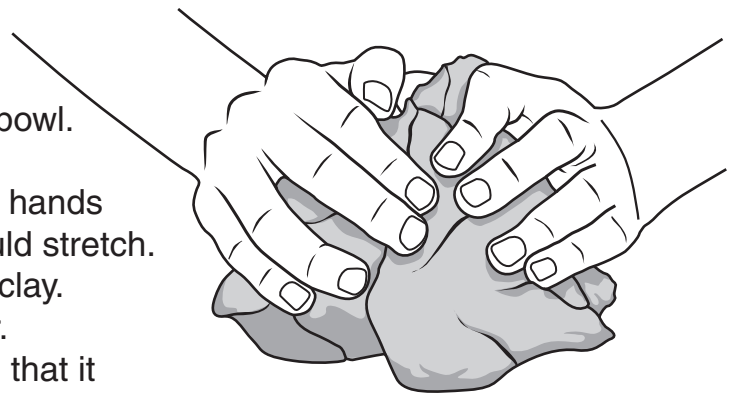
### Materials:

- 1 cup of salt
- 3 cups of flour
- 1 large bowl
- 2 tablespoons of cooking oil
- 1 cup of water
- 1 small bottle of food coloring (any color)
- small plastic bags
- 1 large spoon



### Directions:

1. Pour the salt into the bowl.
2. Add the flour to the bowl.
3. Pour the cooking oil and water into the bowl.
4. Mix everything with the spoon.
5. Squeeze the mixture together with your hands until it is smooth like clay. The clay should stretch.
6. Add small drops of food coloring to the clay.
7. Squeeze the clay again to mix the color.
8. Put the clay in the small plastic bags so that it does not become dry.



Go On ►

**Use your imagination to create one-of-a-kind works of art with clay!**

### **Helpful Hints for Making Clay Models**

- Plastic knives and spoons can be used to mold or form shapes in the clay.
- Straws and toothpicks can be used to hold parts of clay sculptures together.
- Crumpled paper can be used to support your clay model while it is left out to dry.



© Egal/Dreamstime #6062989

### **Decorating Your Projects**

- Paint the projects with poster paint.
- Add glitter to the wet paint to make your project sparkle.



© Ivan Mateev/Stockphoto #2961892

### **39 Read this sentence from the flier.**

Plastic knives and spoons can be used to mold or form shapes in the clay.

**What does mold mean in the sentence?**

- A** create a type of figure
- B** mix with other materials
- C** help an object look real



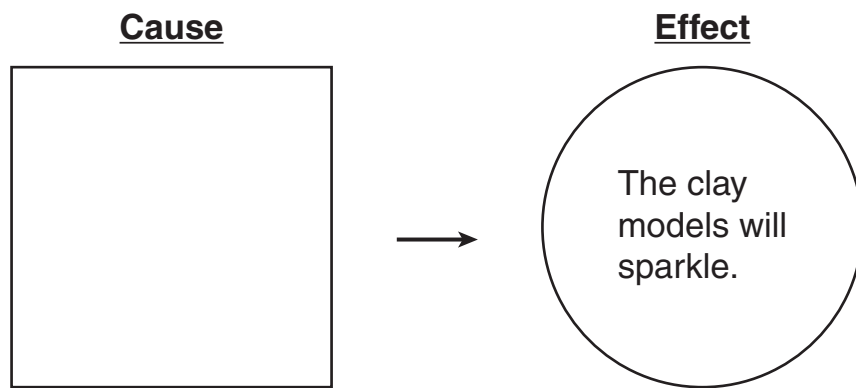
**40** Read the analogy based on the flier.

Wet is to dry as smooth is to \_\_\_\_\_.

Which word correctly completes the analogy?

- F** firm
- G** rough
- H** plain

**41** Read this chart based on the flier.



Which sentence best completes the chart?

- A** Allow the project to dry completely.
- B** Hold the figure together with toothpicks.
- C** Add glitter to the paint while decorating.

*Go On ►*

**42** Which ingredient is added last to make the clay?

- F** water
- G** cooking oil
- H** food coloring

**43** Under which heading will the reader learn how to shape clay more easily?

- A** How to Make Clay
- B** Helpful Hints for Making Clay Models
- C** Decorating Your Projects

**44** Which question is answered in the flier?

- F** Where is clay found?
- G** Who discovered clay?
- H** When was clay first used?

**45** How does the picture in “Helpful Hints for Making Clay Models” help readers understand the information in the flier?

- A** It shows that the animals are made of several parts.
- B** It shows how to use paper to make the animals.
- C** It shows when to add objects to the animal figures.

**46** Based on the flier, what can the reader infer about working with clay?

- F** The clay is difficult to make.
- G** Bright colors work best on clay.
- H** Clay needs to be wet to be shaped.

**47** Jessie wants to know about projects he can make with clay. Which source will give Jessie the most reliable information?

- A** a phone call with a friend who often uses clay
- B** a craft book filled with ideas for clay projects
- C** an advertisement for clay at an art materials store

*Go On ►*

**Directions** A group of students wrote this letter. It contains mistakes.  
Read the letter and answer Numbers 48 through 55.

March 14, 2012

Dear City Council Members:

- 1 We are students from Elm Elementary. Our teacher has asked the class to think of a way to improve our town. Our idea is to have a day when people will work together to plant trees. Planting trees can help people in several ways.
- 2 Trees can make people happy and calm. Our class gave a survey to one hundred people. We asked the people questions about trees. We studied their answers. The results show people feel happiest when they are around many trees. The results also show that sick people seem to feel better when they can see trees from their windows.
- 3 Trees also to clean the air. They take chemicals out of the air and make more oxygen. Trees give shade that keeps houses cool in warm weather. The shade saves energy by reducing the amount of electricity needed to cool houses.
- 4 A tree-planting day bringing people in our town together. People may makes new friends. Working together also makes people feel like a part of a team.
- 5 We hope you will agree with our idea. If you do, our class can work on the details. We have already spoken with the owner of a local tree store. The storeowner is willing to sell trees to us at a low cost. We will be able to buy cold drinks at the store. The storeowner will also show people how to plant the trees properly. Thank you for your time.

Sincerely,

Mr. López's Fourth-Grade Class

**48** Read these sentences from Paragraph 1.

We are students from Elm Elementary. Our teacher has asked the class to think of a way to improve our town.

**Choose the correct pronoun to replace the underlined words.**

- F** we
- G** us
- H** her

**49** Read these sentences from Paragraph 2.

We asked the people questions about trees. \_\_\_\_\_, we studied their answers.

**Which transitional word belongs in the blank?**

- A** Next
- B** Instead
- C** Yet

**50** Read this sentence from Paragraph 3.

Trees also to clean the air.

**What is the best way to correct this incomplete sentence?**

- F** Help trees also to clean the air.
- G** Also help trees to clean the air.
- H** Trees also help to clean the air.

*Go On ►*

**51** Read this sentence from Paragraph 4.

A tree-planting day bringing people in our town together.

**Choose the correct replacement for the underlined word.**

- A** will bring
- B** bring
- C** will brings

**52** Read this sentence from Paragraph 4.

People may makes new friends.

**Choose the correct way to write the underlined words.**

- F** People may make
- G** A person may makes
- H** correct as is

**53** Read these sentences from Paragraph 5.

The storeowner is willing to sell trees to us at a low cost. We will be able to buy cold drinks at the store. The storeowner will also show people how to plant the trees properly.

Which sentence does not belong in the paragraph?

- A** The storeowner is willing to sell trees to us at a low cost.
- B** We will be able to buy cold drinks at the store.
- C** The storeowner will also show people how to plant the trees properly.

**54** The students want to learn more about how trees help people. Which source would give them the most appropriate information?

- F** a website about trees that grow in different parts of the world
- G** a news article about how shade from trees keeps houses cool
- H** an interview with a neighbor who has many trees in his backyard

**55** The students wrote this letter to

- A** share experiences with people about fourth graders working together.
- B** entertain people with a story about planting trees in a neighborhood.
- C** inform people about a good idea to improve the town.

*Go On ►*

**Directions**

Keiko gave this speech to her class. Read the speech and answer Numbers 56 through 63.

## Dog Days

- 1 Last year, my aunt Jen went on vacation. She asked me to take care of her dog, Baxter. Aunt Jen told me that Baxter is really playful and needs to be walked every day. I was happy to help. I got excited when Aunt Jen said she would pay me some money for helping her!
- 2 One afternoon, my neighbor Mr. Ling noticed how careful I was with Baxter. Mr. Ling suggested that I start a dog-walking service. It seemed like a good idea. I wrote down some ideas about how to start this service. Soon I had a plan.
- 3 First, I asked my mother for permission. Then I spoke to several of my neighbors who have dogs. I asked if they would like someone to walk their dogs in the afternoons or on Saturday mornings. This helped me build a list of possible customers.
- 4 Next, I made fliers about my service. I wrote my name, telephone number, and the amounts I would charge for walking their dogs. I even drew a picture of myself walking Baxter. Then I passed out the fliers to each person on my list.



## Dog Days Walking Service

- \$3.00 for 30 minutes
- \$5.00 for 1 hour

### Hours

Monday through Friday:  
5 P.M. to 7 P.M.  
Saturday: 9 A.M. to 12 P.M.



**Keiko Kimura**  
**290-5992**

- 5      Soon, I had five customers. After being paid, I used some of the money I earned to buy toys and dog treats for the pups. I also bought a calendar to keep track of my schedule.
- 6      Having this business has taught me to be responsible. I make sure that I walk the dogs only after my homework and chores are finished. I also make sure I show up on time or call if I need to cancel a walk. Trust is very important. I want my customers to know that they can trust me with their dogs.
- 7      Starting a dog-walking business was a great idea. I am exercising more, and I do not have to ask my parents for spending money. I am so glad that my aunt gave me the chance to take care of Baxter. I have learned that hard work can be its own reward.

*Go On ►*

**56** Paragraph 4 is mainly about

- F** the picture Keiko drew of Aunt Jen's dog.
- G** the amount of money Keiko charges for walking dogs.
- H** the information Keiko includes in her dog-walking flier.

**57** While Keiko is speaking, the audience should

- A** listen carefully and make eye contact with Keiko.
- B** show interest by asking Keiko a lot of questions.
- C** call out to Keiko with words of encouragement.

**58** What is the main idea of the flier included with Keiko's speech?

- F** Keiko offers a service for neighborhood dogs.
- G** Keiko is a young girl who likes walking dogs.
- H** Keiko has limited hours for taking care of dogs.

**59** Which question is answered in the speech?

- A** Which kinds of dogs does Keiko walk each day?
- B** How much money does Keiko earn for watching Baxter?
- C** Which neighbor suggests that Keiko should walk dogs?

**60** Keiko's speech is mainly about how she

- F** took care of a family dog.
- G** started a new business.
- H** learned to be honest.

**61** After listening to Keiko's speech, a student wants to know a synonym for the word "business." Which reference book will give this information?

- A** an atlas
- B** an encyclopedia
- C** a thesaurus

*Go On ►*

- 62** After reading Keiko’s flier, a classmate made this chart.

**Dog Days Walking Service**  
**Keiko Kimura**  
**290-5992**

Prices	Hours
\$3.00 for 30 minutes \$5.00 for 1 hour	Saturday: 9 A.M. to 12 P.M.

According to the flier, which information should be added to the chart?

- F** Monday through Friday: 4 P.M. to 7 A.M.
- G** Monday through Friday: 5 A.M. to 7 P.M.
- H** Monday through Friday: 5 P.M. to 7 P.M.

- 63** Which type of media would best enhance Keiko’s speech?

- A** a short video of Keiko walking a dog
- B** a map of Keiko’s neighborhood
- C** a photo showing Keiko shopping for treats

**Directions** Read and answer Numbers 64 through 66.

**64** Which sentence uses quotation marks correctly?

- F** “Let’s go” to the park, Kim said.
- G** “Angela asked, How will we get there?”
- H** “Let’s ask my mom if she will drive us,” Angela said.

**65** Which resource do fourth graders have today that their grandparents did not have when they were in the fourth grade?

- A** online dictionaries
- B** magazine articles
- C** news reports

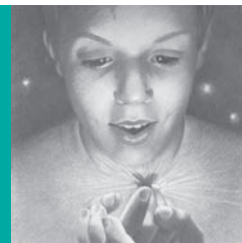
**66** Which sentence uses the underlined word correctly?

- F** Sam went too the store with his mother.
- G** Bill’s mother needed some items from the store to.
- H** The two friends had a fun time shopping at the store.

**STOP** 

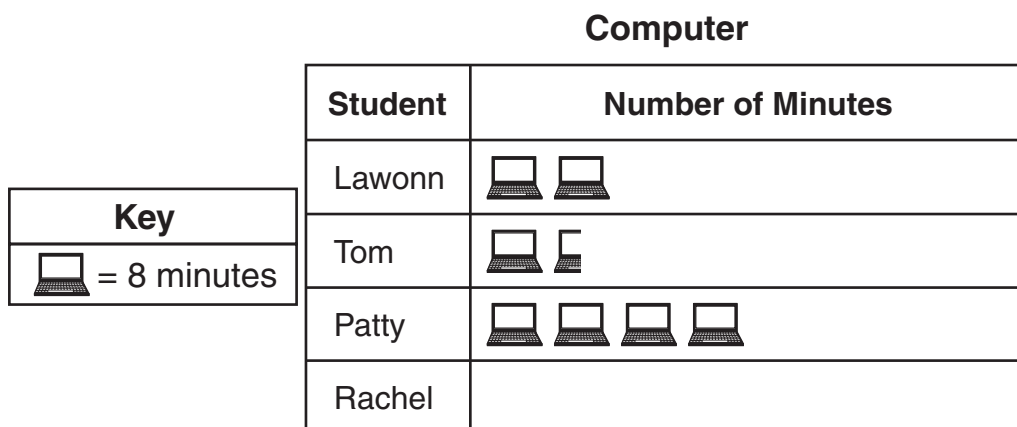
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# Mathematics











## Part 1





- 1** This pictograph shows the numbers of minutes three out of four students spent using a computer.



These four students spent a total of 68 minutes using the computer. Which row correctly shows the number of minutes Rachel spent using the computer?

- A**

Rachel	       
--------	--
- B**

Rachel	   
--------	---
- C**

Rachel	
--------	---

*Go On ►*

**2** Which number is a common multiple of 4 and 8?

**F** 24

**G** 36

**H** 44

**3** Look at this figure.



Which list best describes the four angles in this figure?

**A** 1 acute angle, 2 obtuse angles, 1 right angle

**B** 2 acute angles, 1 obtuse angle, 1 right angle

**C** 1 acute angle, 1 obtuse angle, 2 right angles

**4** Read this number.

fifteen thousand, seventy-nine

How is this number written in standard form?

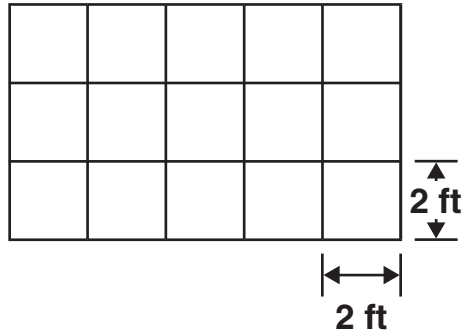
**F** 15,709

**G** 15,079

**H** 1,579



- 5** Each small square in this figure has a side length of 2 feet.



What is the perimeter of this figure?

- A** 15 feet
- B** 16 feet
- C** 32 feet

- 6** Subtract:

$$\frac{9}{12} - \frac{1}{3} =$$

- F**  $\frac{8}{9}$
- G**  $\frac{2}{3}$
- H**  $\frac{5}{12}$

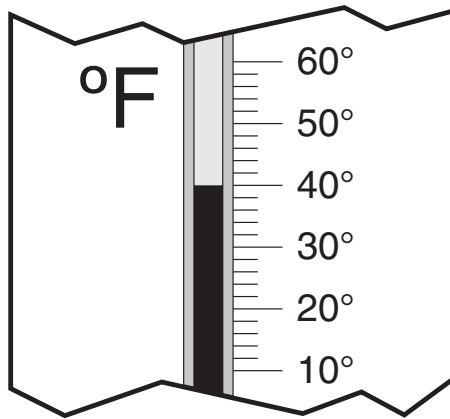
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**7** What is the total number of minutes in 8 hours?

1 hour = 60 minutes

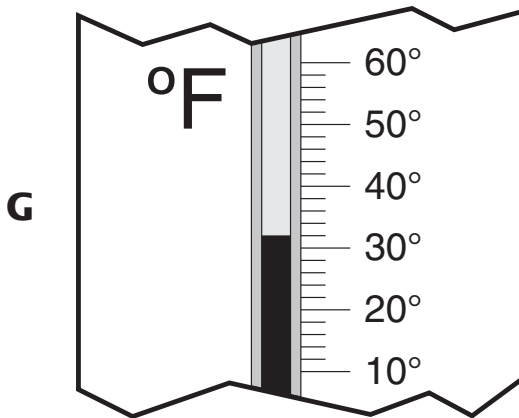
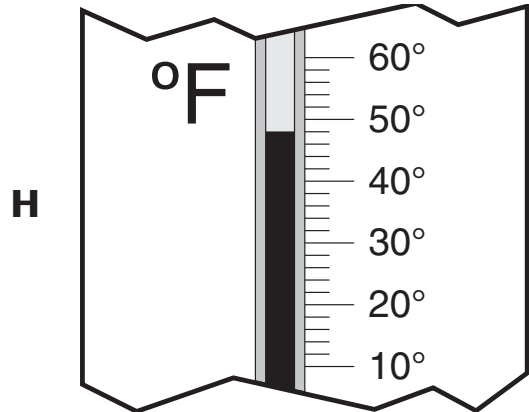
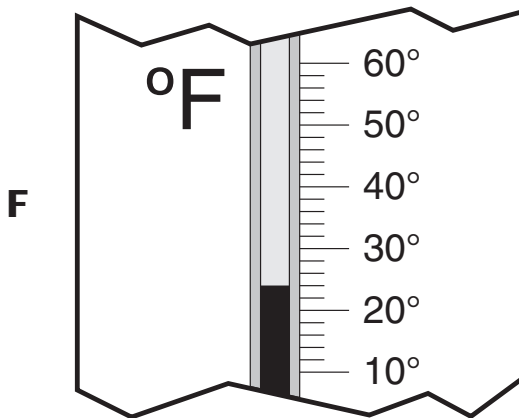
- A** 600 minutes
- B** 480 minutes
- C** 48 minutes

**8** Look at Thermometer S.



Thermometer S

Which thermometer shows a temperature that is  $8^{\circ}\text{F}$  less than the temperature shown on Thermometer S?



*Go On* ►

- 9** This table shows the total number of cookies that can be made using different numbers of eggs.

**Cookies**

Total Number of Cookies	Number of Eggs
24	2
36	3
48	4
60	5
72	6

Based on the pattern in the table, what is the total number of cookies that can be made using 8 eggs?

- A** 96
- B** 84
- C** 12

- 10** Which number is equivalent to  $\frac{34}{10}$ ?

- F** 3.1
- G** 3.2
- H** 3.4

- 11** What is one way to show that this number sentence is true?

$$3(6 + 8) = 42$$

- A**  $3(6 + 8) = (3 \times 6) \times (3 \times 8)$
- B**  $3(6 + 8) = (3 + 6) + (3 + 8)$
- C**  $3(6 + 8) = (3 \times 6) + (3 \times 8)$

- 12** A worker makes 56 skateboards each week. What is the total number of skateboards the worker makes in 45 weeks?

- F** 2,290
- G** 2,520
- H** 2,673

- 13** This list shows the number of points a basketball player scored during each of three weeks.

- Week 1 — 88
- Week 2 — 41
- Week 3 — 56

Which estimate is closest to the total number of points this basketball player scored during these weeks?

- A** 170
- B** 190
- C** 200

*Go On ►*

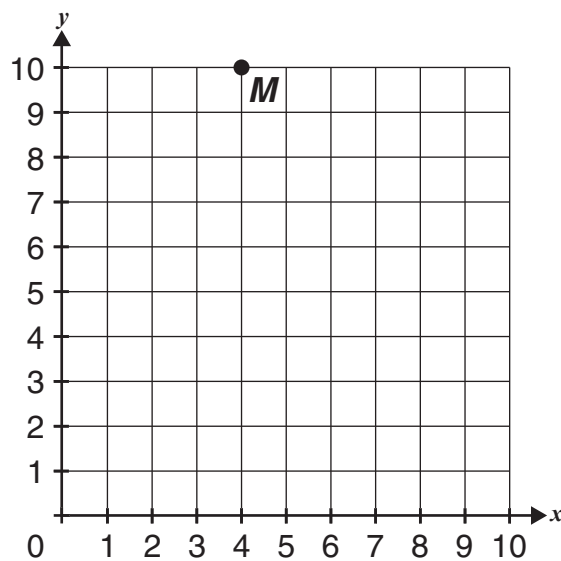
**14** Which number sentence is true?

**F**  $\frac{1}{3} > \frac{1}{5}$

**G**  $\frac{1}{3} = \frac{1}{5}$

**H**  $\frac{1}{3} < \frac{1}{5}$

**15** Point *M* is shown on this coordinate grid.



Which coordinates best represent the location of Point *M*?

**A** (4, 10)

**B** (5, 10)

**C** (10, 4)

- 16** Sylvia has 250 crayons. Rita has  $t$  more crayons than Sylvia. Which expression represents the number of crayons Rita has?

**F**  $250 - t$

**G**  $250 + t$

**H**  $250 \times t$

- 17** How many milliliters are equal to 45 liters?

$1 \text{ liter} = 1,000 \text{ milliliters}$
---

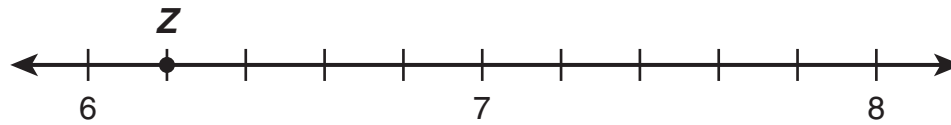
**A** 45,000 milliliters

**B** 4,500 milliliters

**C** 450 milliliters

*Go On ►*

- 18** Look at this number line.



Which mixed number is best represented by Point Z on the number line?

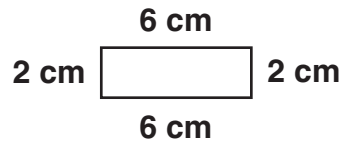
**F**  $6\frac{1}{5}$

**G**  $6\frac{1}{4}$

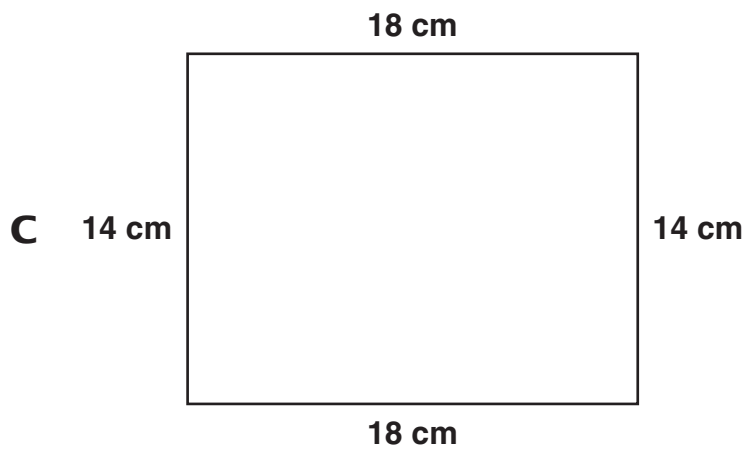
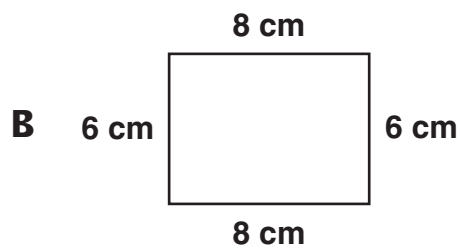
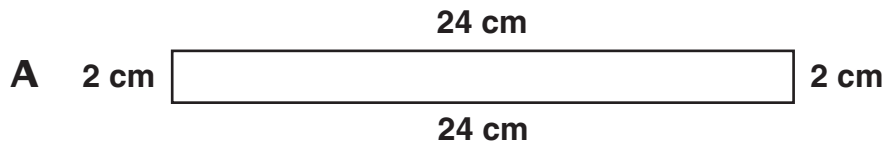
**H**  $7\frac{4}{5}$



- 19** Sam drew this rectangle.



Which rectangle has a perimeter that is 4 times the perimeter of the rectangle Sam drew?



*Go On ►*

- 20** Look at this number.

700.35
--------

What is the value of the digit 3 in this number?

- F** 3 tens
- G** 3 tenths
- H** 3 hundredths

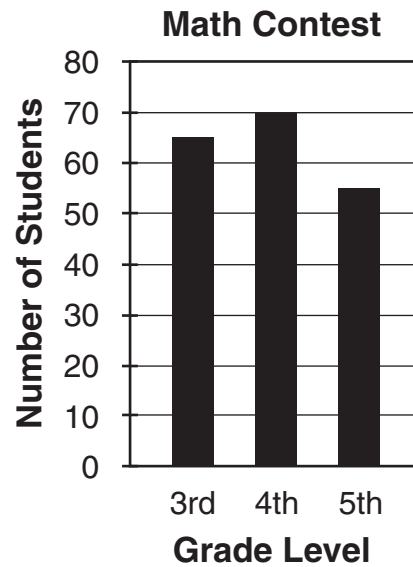
- 21** Felix ran two races. This list shows the amounts of time he took to run these races.

- 11 seconds
- 9.8 seconds

What is the difference between these amounts of time?

- A** 1.2 seconds
- B** 2.8 seconds
- C** 8.7 seconds

- 22** This graph shows the number of students in each grade level who entered a math contest.



Which table best represents the information in the graph?

**Math Contest**

**F**

Grade Level	3rd	4th	5th
Number of Students	60	70	50

**Math Contest**

**G**

Grade Level	3rd	4th	5th
Number of Students	65	70	55

**Math Contest**

**H**

Grade Level	3rd	4th	5th
Number of Students	70	70	60

*Go On ►*

- 23** Tanner poured some milk into a bowl of cereal, like the one shown.



Which is the best estimate of the amount of milk Tanner poured into this bowl?

- A** 1 cup
  - B** 1 liter
  - C** 1 fluid ounce
- 24** Which decimal is equivalent to  $\frac{1}{5}$ ?
- F** 0.1
  - G** 0.2
  - H** 0.5

**25** Look at these lengths.

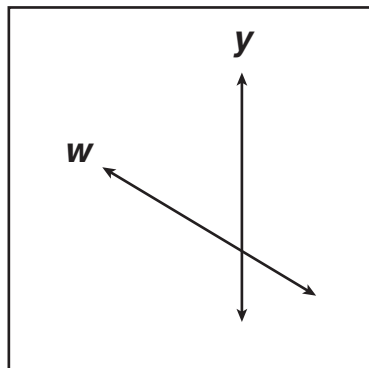
18.9 meters

19.24 meters

What is the difference between these lengths?

- A** 0.34 meter
- B** 1.74 meters
- C** 17.35 meters

**26** Look at these lines.



Which word best describes these lines?

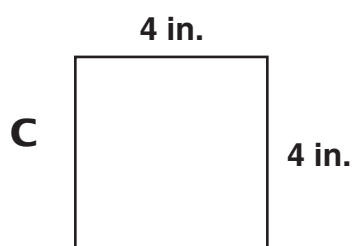
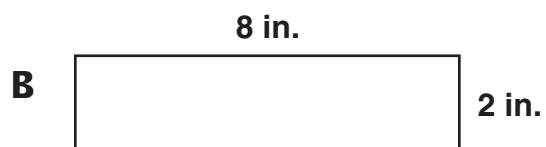
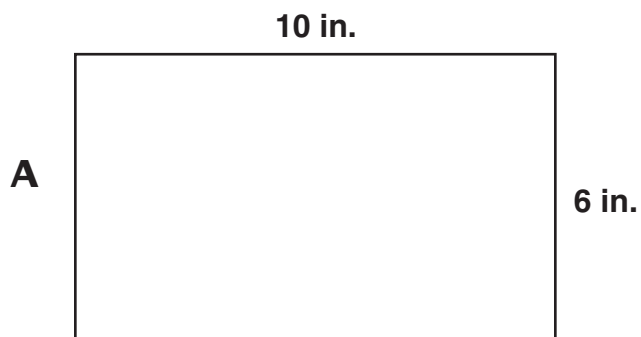
- F** parallel
- G** intersecting
- H** perpendicular

**STOP** 

## Part 2

- 27** Which rectangle does not have an area of 16 square inches?

$$\text{Area} = \text{length} \times \text{width}$$



**28** Which number has a 3 in the hundreds place?

**F** 210,340

**G** 300,415

**H** 500,135

**29** There are 20 students in a class.

- There are 10 students wearing purple shirts.
- There are 3 students wearing green shirts.
- The rest of the students are wearing white shirts.

What fraction represents the students in the class who are wearing white shirts?

**A**  $\frac{3}{20}$

**B**  $\frac{7}{20}$

**C**  $\frac{13}{20}$

*Go On ►*

- 30** Nathan made 16 gallons of fruit punch.

1 gallon = 8 pints

How many pints are equivalent to 16 gallons?

- F** 128 pints
- G** 24 pints
- H** 2 pints

- 31** Read this number.

seventy and twelve hundredths

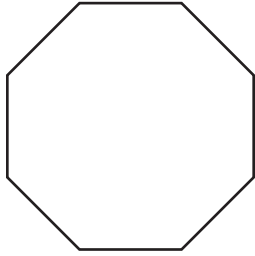
What is another way to write this number?

- A** 7.012
- B** 70.012
- C** 70.12

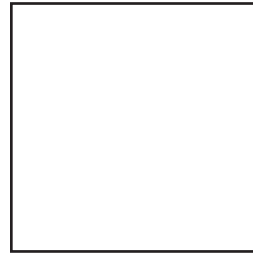


**32** Which figure has only acute angles?

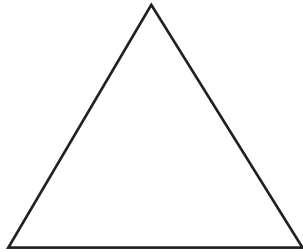
**F**



**H**



**G**



**33** Roberta put 48 jellybeans on cupcakes. She put  $j$  jellybeans on each cupcake. Which expression represents the number of cupcakes on which she put jellybeans?

**A**  $48 \div j$

**B**  $48 \times j$

**C**  $48 - j$

*Go On ►*

**34** Solve:

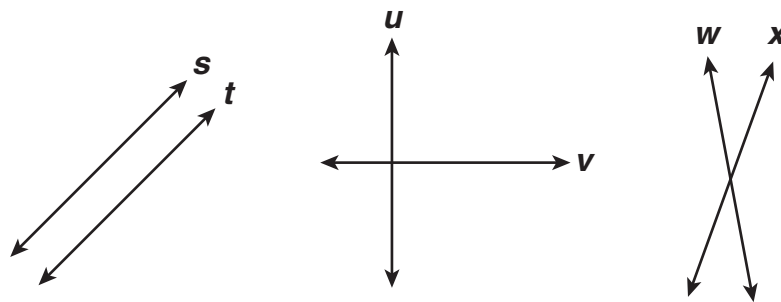
$$825 \div 15 =$$

- F** 54
- G** 55
- H** 59

**35** Which number sentence shows the correct use of the commutative property?

- A**  $2 \times 5 = 5 + 5$
- B**  $2 \times 5 = 5 \times 2$
- C**  $2 \times 5 = 5 + 2$

**36** Benito drew these lines.



Which two lines are parallel?

- F** Lines  $s$  and  $t$
- G** Lines  $u$  and  $v$
- H** Lines  $w$  and  $x$

**37** Which number sentence is true?

**A**  $0.5 = \frac{5}{5}$

**B**  $0.75 > \frac{3}{4}$

**C**  $0.8 = \frac{4}{5}$

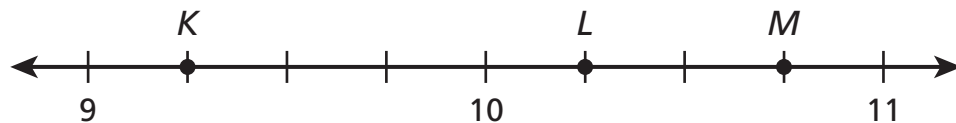
**38** Oliver had 20 bags. He put  $p$  crackers into each bag. Which expression represents the total number of crackers Oliver put into these bags?

**F**  $20 \div p$

**G**  $20 + p$

**H**  $20 \times p$

**39** Look at this number line.



Which point best represents  $10\frac{3}{4}$  on this number line?

**A** Point  $K$

**B** Point  $L$

**C** Point  $M$

*Go On ►*

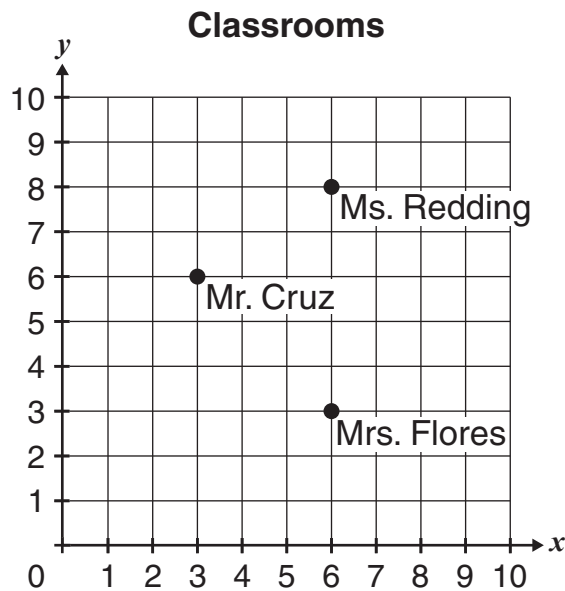
**40** Which number is equivalent to  $\frac{15}{6}$ ?

**F**  $13\frac{2}{6}$

**G**  $2\frac{3}{6}$

**H**  $1\frac{5}{6}$

**41** This coordinate grid shows the locations of three teachers' classrooms in a school.



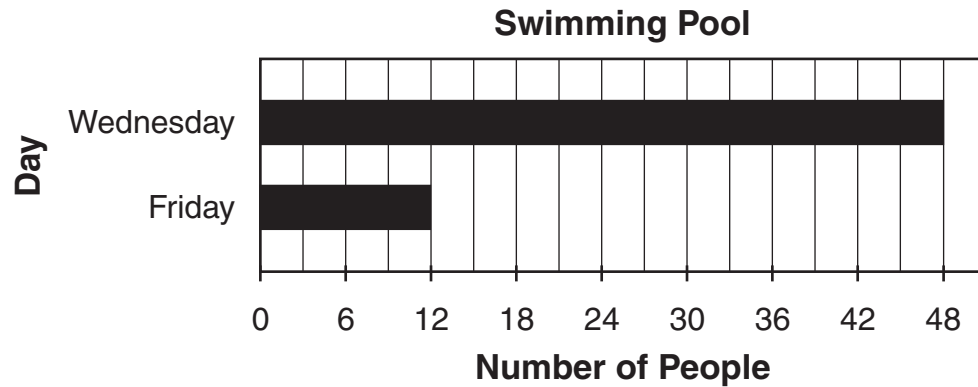
Which teacher's classroom appears to be located at (6, 3)?

**A** Ms. Redding

**B** Mr. Cruz

**C** Mrs. Flores

- 42** This graph shows the numbers of people at a pool on two days.



Which is the best estimate of the difference between the number of people at the pool on Wednesday and the number of people at the pool on Friday?

- F** 40
- G** 50
- H** 60

- 43** Solve:

$$\begin{array}{r} 638 \\ \times 21 \\ \hline \end{array}$$

- A** 12,398
- B** 13,298
- C** 13,398

*Go On ►*

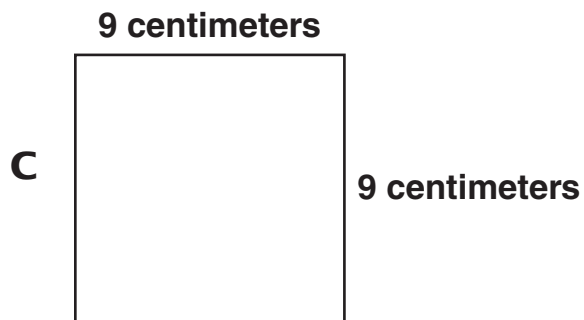
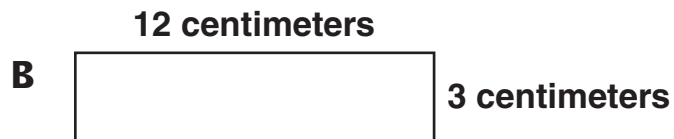
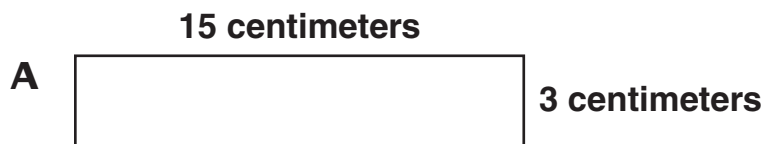
**44** This list shows the heights of three plants.

- Plant S: 0.75 meter
- Plant T:  $\frac{4}{5}$  meter
- Plant U:  $\frac{1}{4}$  meter

Which plant is the tallest?

- F** Plant S  
**G** Plant T  
**H** Plant U

**45** Which rectangle does not have a perimeter of 36 centimeters?



- 46** A number machine uses a rule to change numbers. This table shows each number that was put into the machine and each number that came out of the machine.

**Number Machine**

In	Out
14	5
16	7
18	9
20	11
22	13

Each number that came out of the number machine is

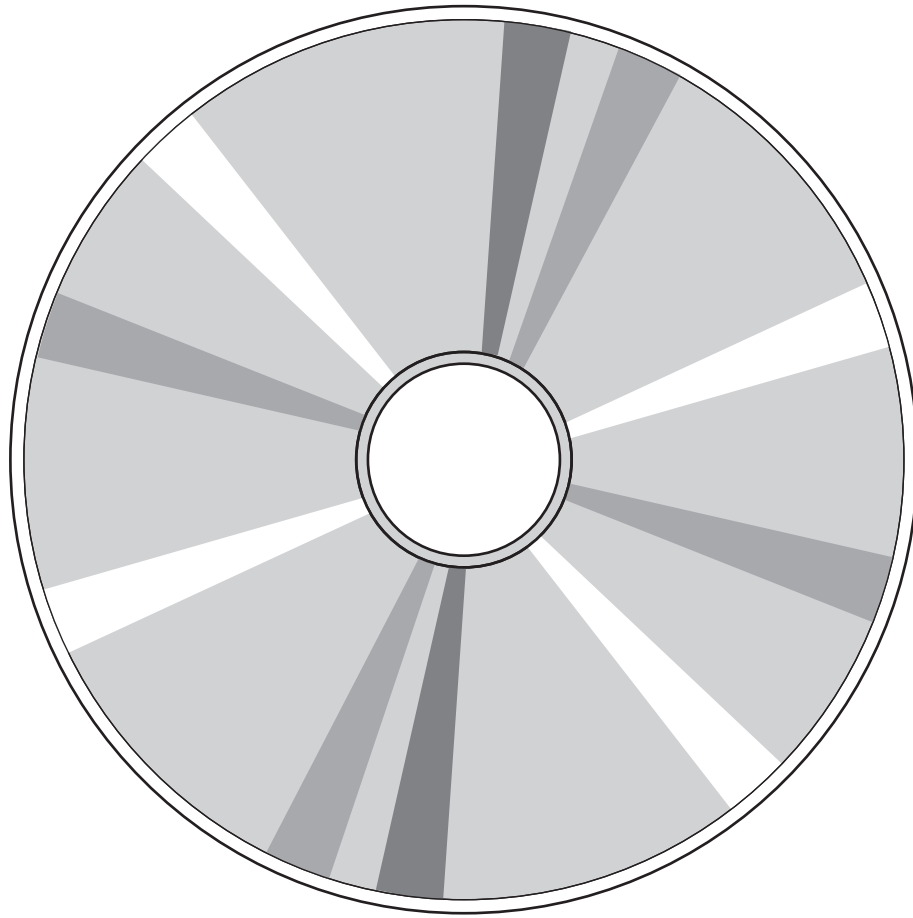
- F** 9 less than the number that went into the number machine.
- G** 2 more than the number that went into the number machine.
- H** 9 more than the number that went into the number machine.

- 47** Which list shows only multiples of 6?

- A** 16, 26, 46
- B** 12, 18, 24
- C** 2, 3, 6

*Go On ►*

- 48** This is a picture of a DVD.



Which is the best estimate of the mass of a DVD?

- F** 15 kilograms
- G** 15 pounds
- H** 15 grams



**49** Rebecca has two ribbons.

- The blue ribbon is  $\frac{1}{2}$  inch long.
- The yellow ribbon is  $\frac{3}{8}$  inch long.

What is the total length of these two ribbons?

**A**  $\frac{7}{8}$  inch

**B**  $\frac{2}{5}$  inch

**C**  $\frac{1}{8}$  inch

*Go On ►*

- 50** This table shows the number of people in a park on each of four days.

**People in a Park**

Day	Number of People
Monday	14
Tuesday	12
Wednesday	8
Thursday	16

Which graph best represents the information in this table?

**People in a Park**

**F**

Day	Number of People
Monday	☺ ☺ ☺ ☺
Tuesday	☺ ☺ ☺
Wednesday	☺ ☺ ☺ ☺ ☺ ☺ ☺ ☺
Thursday	☺ ☺ ☺ ☺

**Key:** ☺ = 4 people

**People in a Park**

**H**

Day	Number of People
Monday	☺ ☺ ☺ ☺
Tuesday	☺ ☺ ☺
Wednesday	☺ ☺
Thursday	☺ ☺ ☺ ☺ ☺ ☺ ☺ ☺

**Key:** ☺ = 4 people

**People in a Park**

**G**

Day	Number of People
Monday	☺ ☺ ☺ ☺
Tuesday	☺ ☺ ☺
Wednesday	☺ ☺
Thursday	☺ ☺ ☺ ☺

**Key:** ☺ = 4 people

**51** Solve:

$$\begin{array}{r} 50.00 \\ -18.42 \\ \hline \end{array}$$

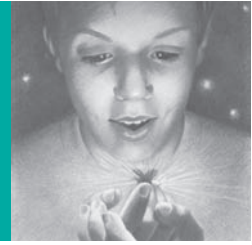
**A** 48.42

**B** 41.58

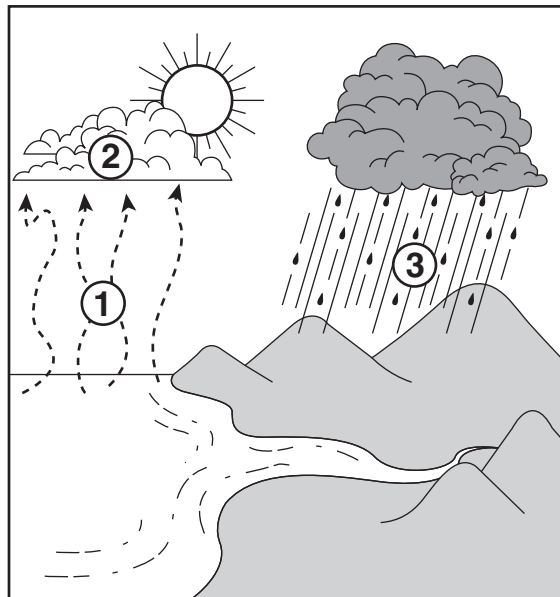
**C** 31.58

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- 1** The diagram shows the water cycle.



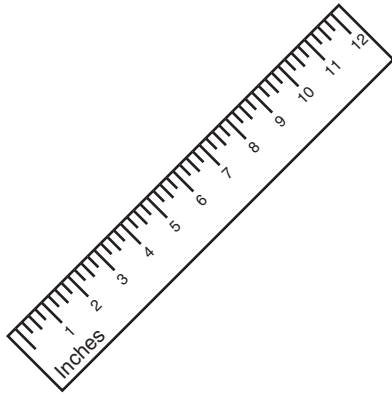
Which number represents precipitation?

- A** 1
- B** 2
- C** 3

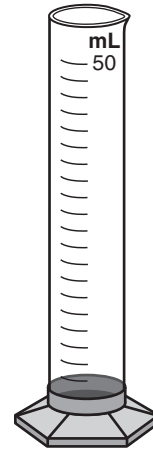
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**2** Which tool should a student use to measure the weight of a rock?

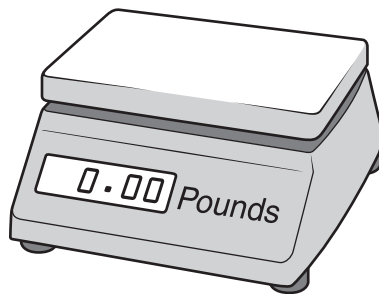
**F**



**H**



**G**



**3** Which magnets are set up so that they will attract each other?



**4** It is important for a person to have a supply of clean, fresh water. When is a person least likely to need water?

- F** during exercise
- G** when cooking
- H** while asleep

**5** A duck has a layer of thick, fluffy feathers. This layer is covered by a layer of waterproof feathers. Where is this duck best adapted to live?

- A** in a hot desert
- B** near a cold lake
- C** on a rocky mountaintop

**6** Which material is transparent?

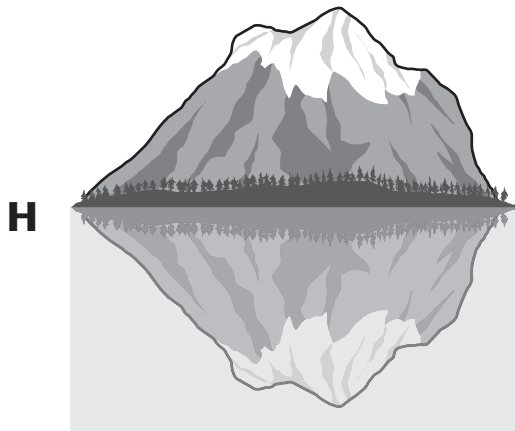
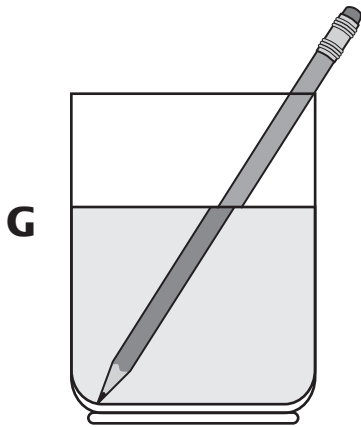
- F** black cotton cloth
- G** white tissue paper
- H** clear plastic wrap

**7** Which cell parts are found in plant cells but not in animal cells?

- A** vacuole and cytoplasm
- B** nucleus and cell membrane
- C** cell wall and chloroplast

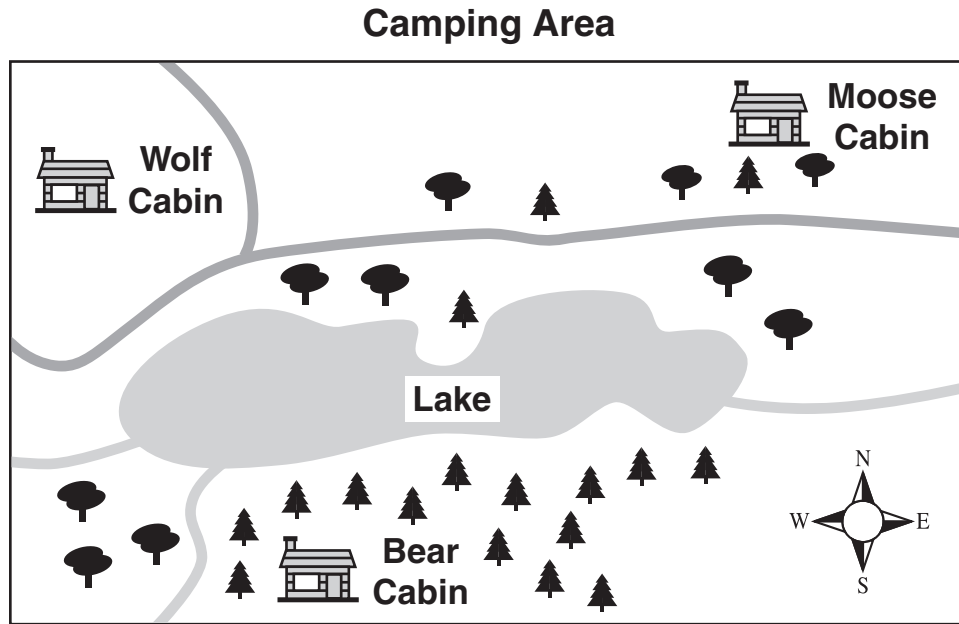
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**8** Which picture best shows light being refracted?





- 9** The map shows a camping area.



A camper wants to hike from Moose Cabin to Bear Cabin. In which two directions should the camper travel?

- A** south, then west
- B** south, then east
- C** east, then south

*Go On ►*

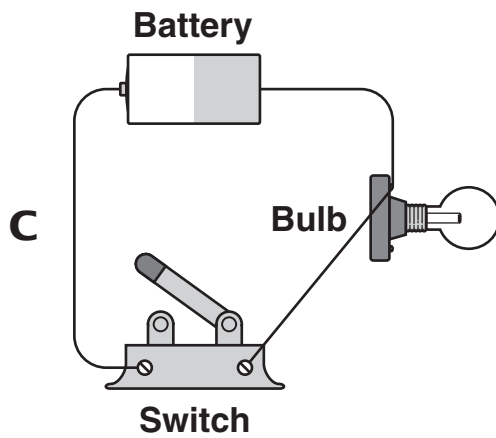
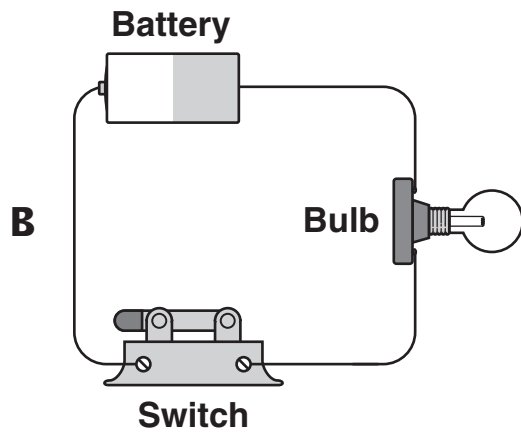
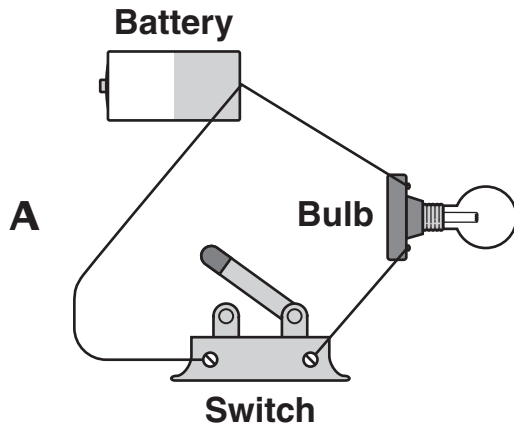
**10** Water mint plants grow near streams.



The stream near a population of water mint plants becomes dry.  
What will most likely happen to this population of water mint plants?

- F** Fewer young water mint plants will start growing.
- G** The stems of the water mint plants will get taller.
- H** Flowers of water mint plants will become a different color.

**11** Which diagram shows a complete circuit that is closed?



*Go On ►*

**12** Which data are needed by a scientist studying climate?

- F** rainfall measurements for one week
- G** barometer readings for two months
- H** average temperatures for thirty years

**13** Three teams traveled the same distance in different amounts of time.

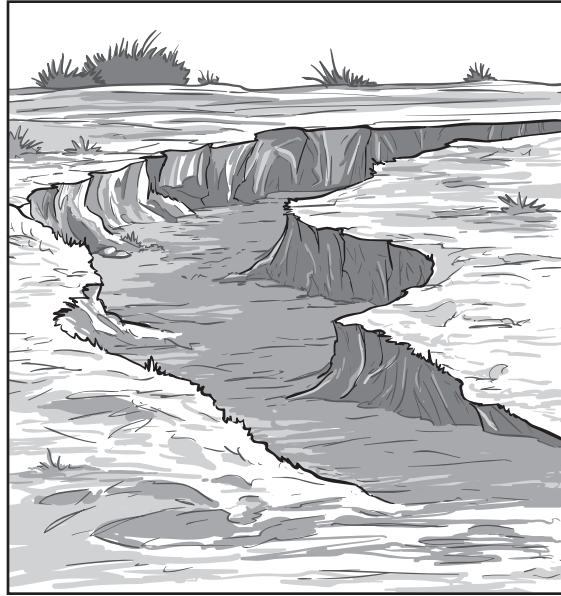
**Travel Data**

<b>Team</b>	<b>Time (hours)</b>
W	1.0
X	1.5
Y	2.5

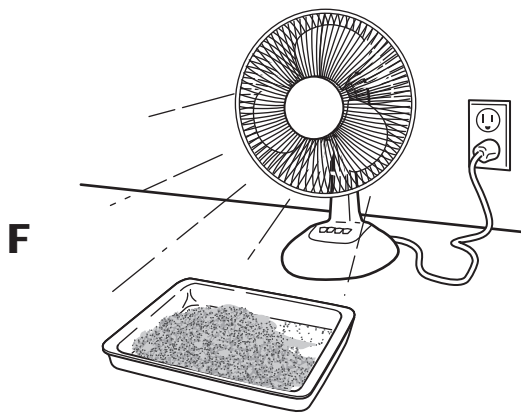
**Which team traveled the slowest?**

- A** Team W
- B** Team X
- C** Team Y

- 14** The picture shows an area of erosion on Earth's surface.



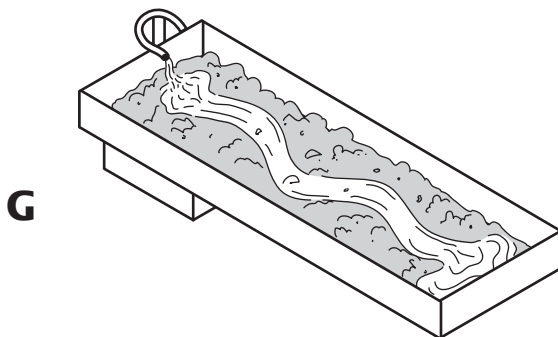
Which model shows how this erosion most likely happened?



Wind is moving the sand.



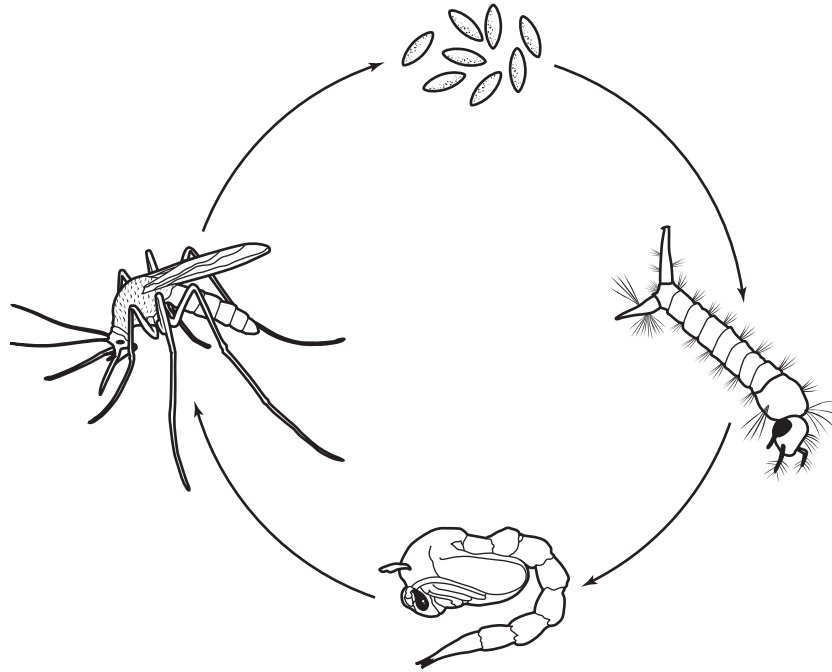
Light is heating the sand.



Water is moving the sand.

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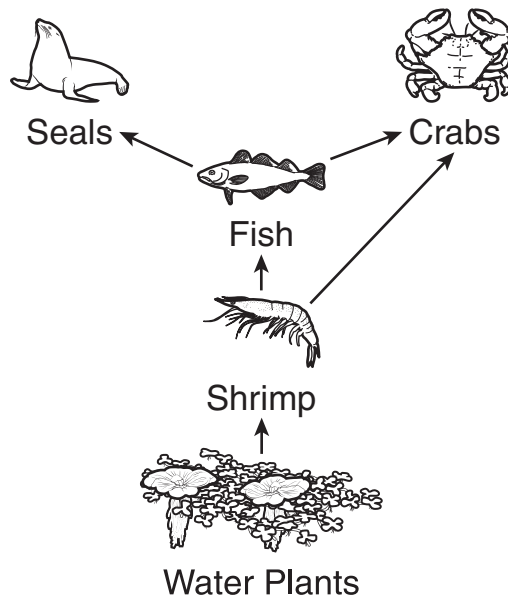
- 15** The diagram shows a mosquito changing over time.



Which sentence best describes the changes to the mosquito?

- A** The mosquito goes through complete metamorphosis.
- B** The mosquito goes through incomplete metamorphosis.
- C** The mosquito goes through a time of hibernation.

- 16** The diagram shows a food web.



Which two animals compete with each other most for shrimp?

- F** Seals and Crabs
- G** Seals and Fish
- H** Fish and Crabs

*Go On ►*

- 17** A student wrote a list of methods that melt chocolate chips.

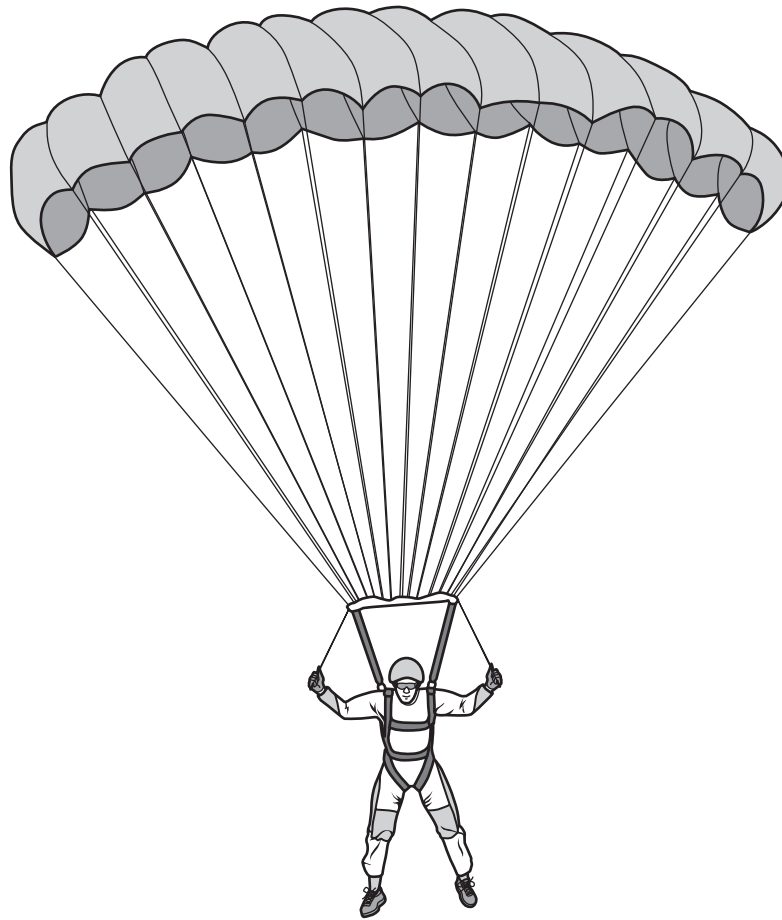
Methods That Melt Chocolate Chips	
1.	Bake in an oven for a few minutes
2.	Put in a sunny place for a few hours
3.	Microwave on high for a few seconds
4.	?

Which of these is another method the student can add to the list?

- A** Heat on a stove for a few minutes
- B** Shake in a bag for a few seconds
- C** Leave in a freezer for a few hours



- 18** A person jumps from an airplane and uses a parachute to slowly fall to the ground.

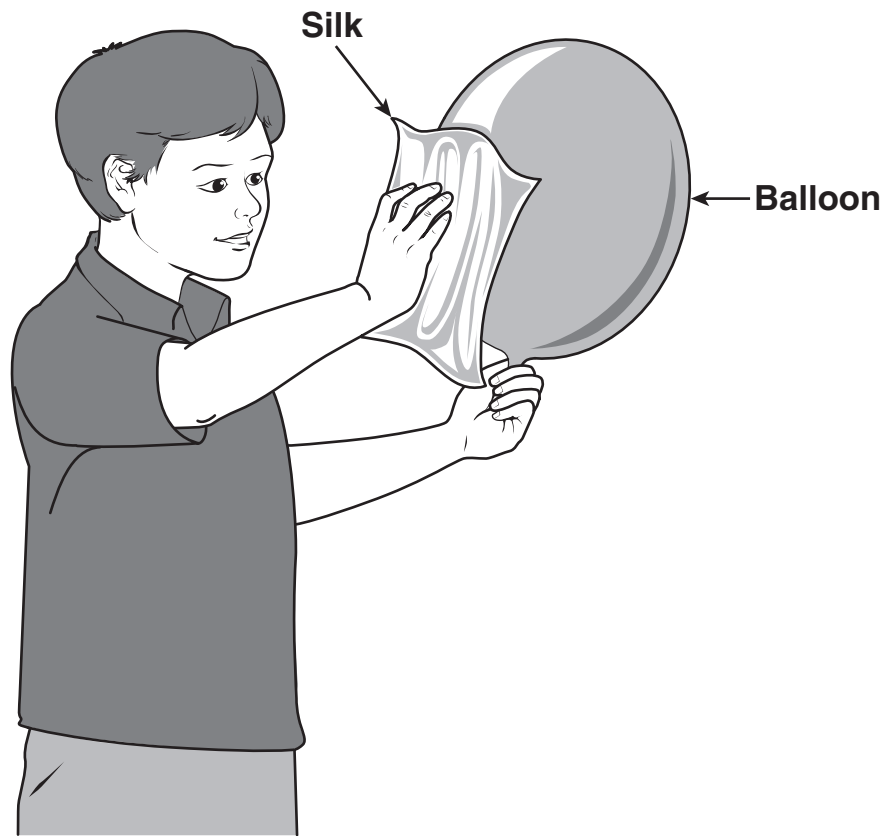


The parachute helps the person fall slowly because the parachute increases

- F** magnetism.
- G** gravity.
- H** air resistance.

*Go On ►*

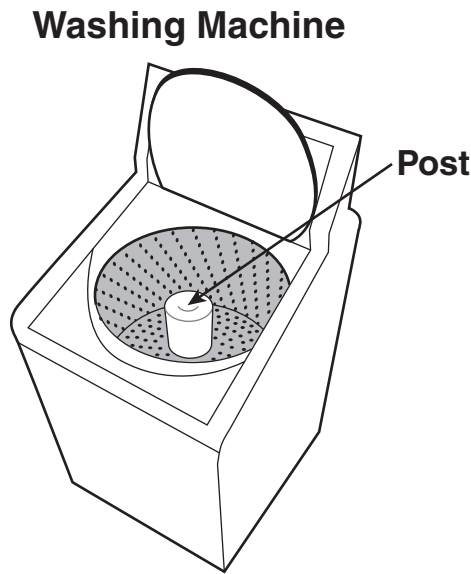
- 19** A student rubbed a piece of silk on a balloon filled with air. He placed the balloon and silk on a table.



The student moves the silk closer to the balloon on the table. What will most likely happen next?

- A** The balloon will be attracted to the silk.
- B** The balloon will be repelled by the table.
- C** The balloon will rise to the ceiling.

- 20** The picture shows a washing machine. There is a post inside the machine that turns back and forth when the machine is running.



What type of energy does the post have as it turns back and forth?

- F** mechanical
- G** electrical
- H** chemical

- 21** A student wants to find out whether a full moon looks larger at a certain time of year than during the rest of the year. Which of these is the best way for the student to investigate how the moon looks during the year?

- A** build a model of the moon orbiting Earth
- B** take photographs of the full moon every month
- C** record weather conditions during different moon phases

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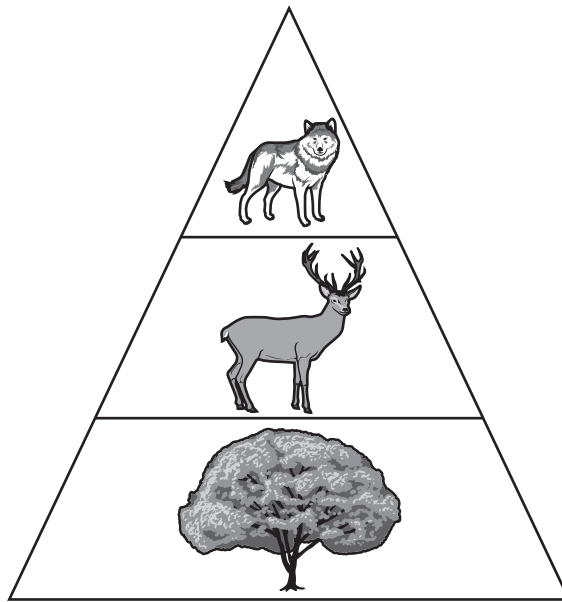
**22** Which Earth material is used for electrical wires?

**F** limestone

**G** copper

**H** diamond

**23** The diagram shows an energy pyramid.



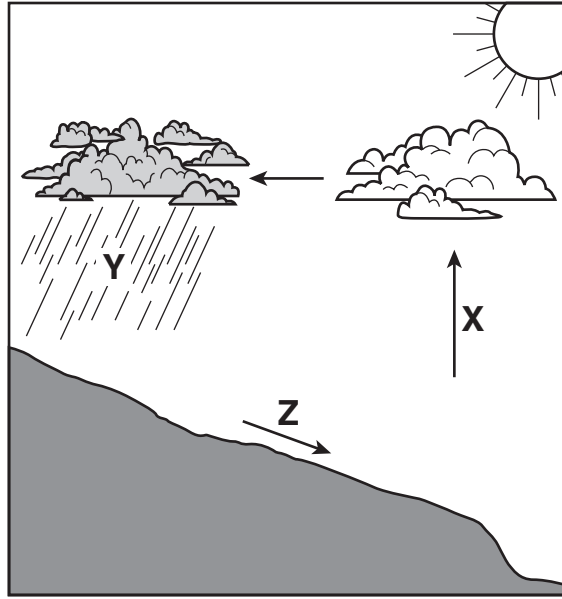
How does energy flow among organisms in this pyramid?

**A** The tree gets energy from the deer.

**B** The deer gets energy from the wolf.

**C** The wolf gets energy from the deer.

**24** The diagram shows the water cycle.



Which letter represents runoff?

**F** X

**G** Y

**H** Z

*Go On* ►

- 25** Three bicycle riders raced their bicycles the same distance. Each rider wore a different-colored shirt. The table shows the time each rider took to finish the race.

**Bicycle Riding Times**

<b>Shirt Color</b>	<b>Time (minutes)</b>
Red	32
Green	30
Blue	36

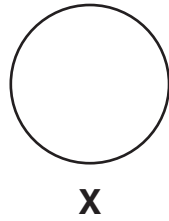
Which shirt color did the fastest rider wear?

- A** Red
- B** Green
- C** Blue

- 26** A student fills a container with water. The student needs to heat the water until it reaches 38°C. Which tool should the student use to measure the temperature of the water?

- F** beaker
- G** balance
- H** thermometer

- 27** The diagram shows four phases of the moon. These phases are not in the right order.



Which of these correctly shows the order of the phases during one month?

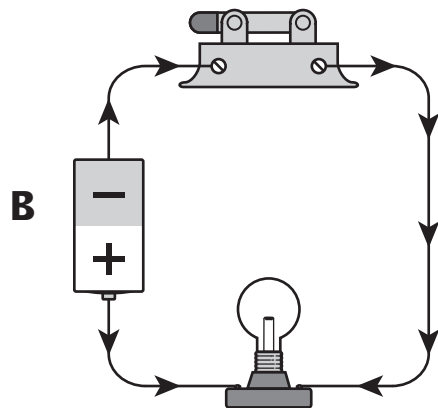
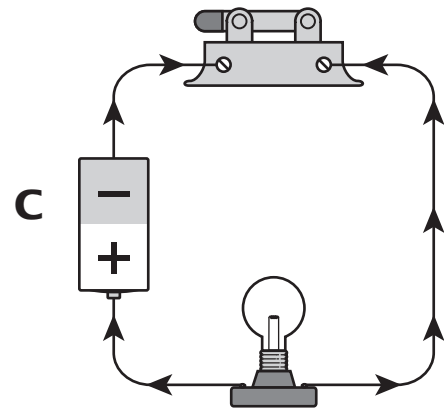
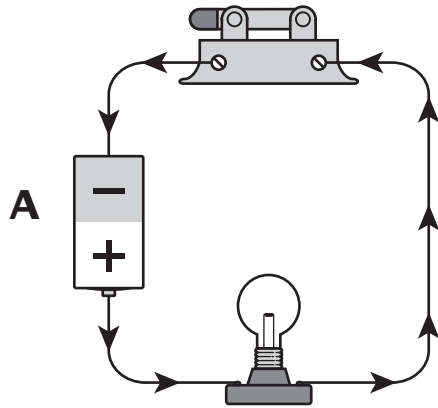
- A** W, Z, Y, X
- B** W, X, Z, Y
- C** W, Y, X, Z

- 28** Which units should a student use to record the length of a book?

- F** kilograms
- G** centimeters
- H** milliliters

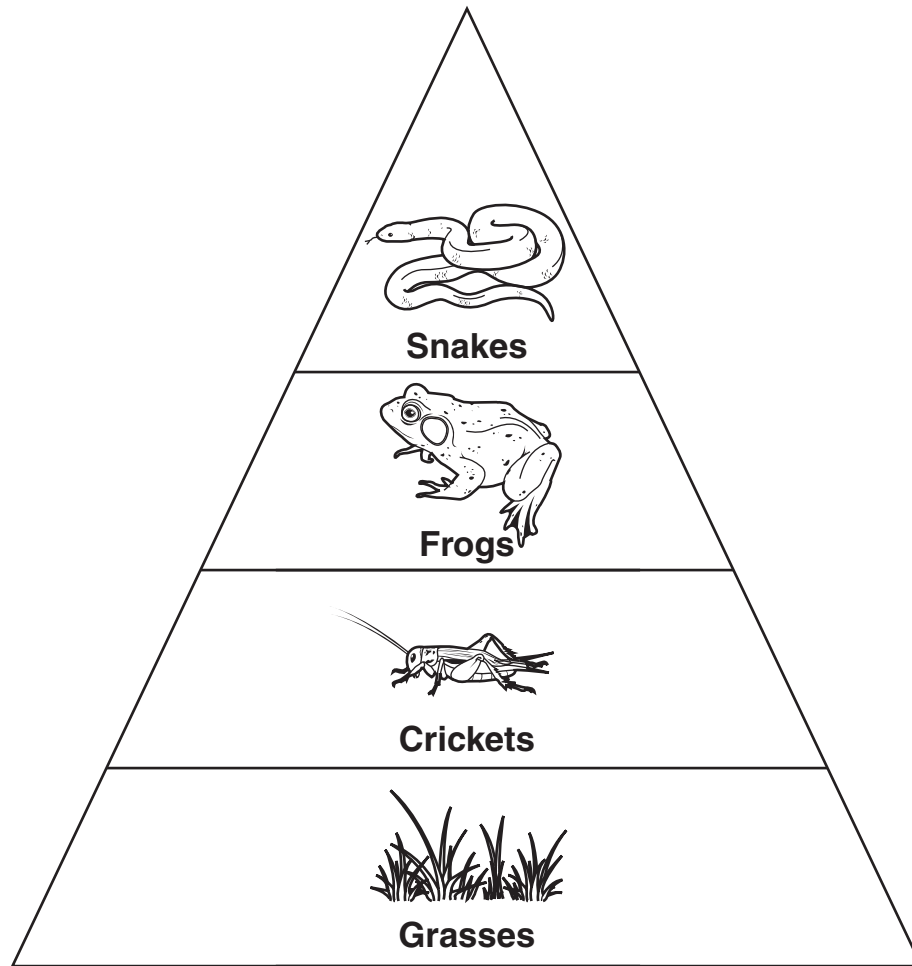
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**29** Which diagram shows how current flows through a circuit?





**30** The diagram shows an energy pyramid.

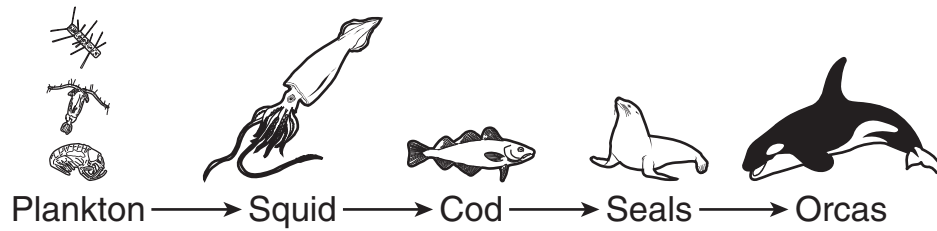


Which term best describes the roles of both frogs and snakes?

- F** producers
- G** herbivores
- H** consumers

*Go On ►*

**31** The diagram shows a food chain.



Which of these would most likely happen if there were suddenly fewer cod?

- A** There would be more squid.
- B** There would be more seals.
- C** There would be more orcas.

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## Part 2

**32** Gray bats are endangered animals that hibernate in caves. Sometimes people visit bat caves and accidentally wake up the bats. The bats that are awakened cannot survive winter. Which of these best explains why gray bats are endangered?

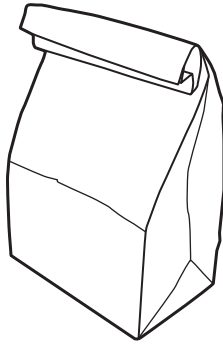
- F** People bring diseases to bats.
- G** People cause pollution in caves.
- H** People disturb the bats.

**33** A stick of butter melts in a pan on a stove. What causes the butter to melt?

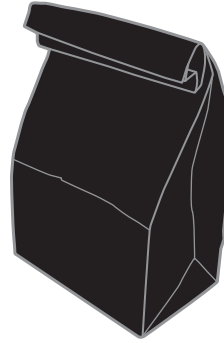
- A** gravity
- B** heat
- C** light

**34** Which bag will absorb the most light?

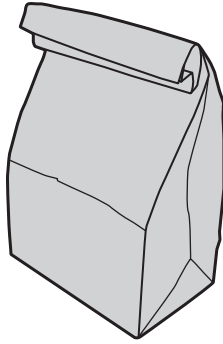
**F**



**H**

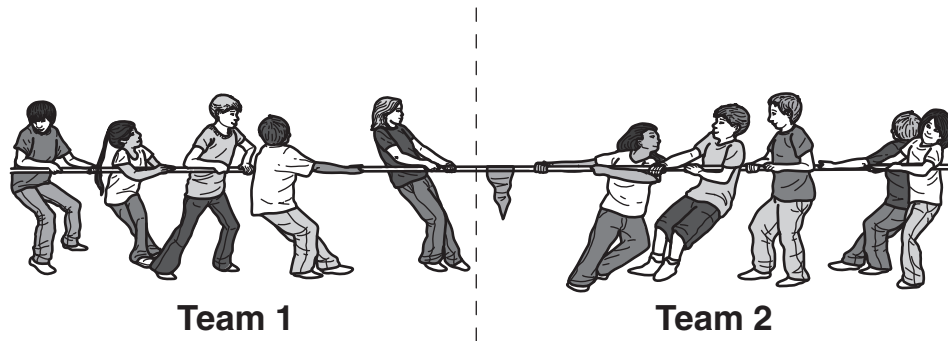


**G**



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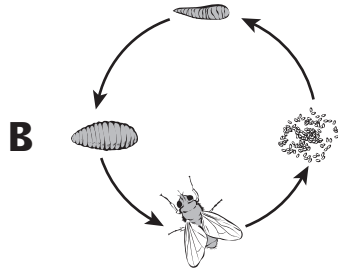
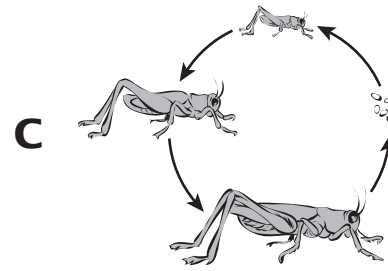
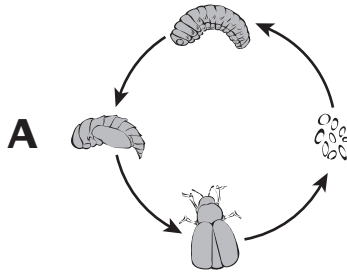
- 35** Students are playing a game of tug of war using a rope. The goal of tug of war is to pull the center flag over the line.



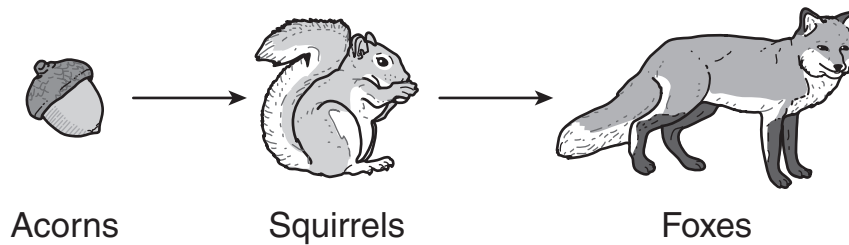
Which of these best explains why Team 2 is winning?

- A** Team 2 has more gravity than Team 1.
  - B** Team 2 is pulling with more force than Team 1.
  - C** Team 2 has less friction on their side than Team 1.
- 36** Scientists want to study how wild gorillas act when there are no humans in the area. Which tool should the scientists use to be able to study wild gorillas?
- F** microscope
  - G** video camera
  - H** laser scanner

**37** Which life cycle shows incomplete metamorphosis?



**38** The diagram shows a food chain.



What will most likely happen if another predator of squirrels is added to this food chain?

- F** There will be more foxes.
- G** There will be fewer foxes.
- H** There will be fewer acorns.

*Go On ►*

- 39** The picture shows a type of woodpecker. This type of woodpecker is endangered in Tennessee.



Woodpeckers of this type make their homes in forests that contain certain types of pine trees. Few of these forests remain in Tennessee. Which is the most likely reason this type of woodpecker is endangered?

- A** too many predators
- B** loss of habitat
- C** increase in pollution



**40** Which Earth material is often used for building and heating homes?

- F** coal
- G** gold
- H** wood

**41** Which sentence best describes climate?

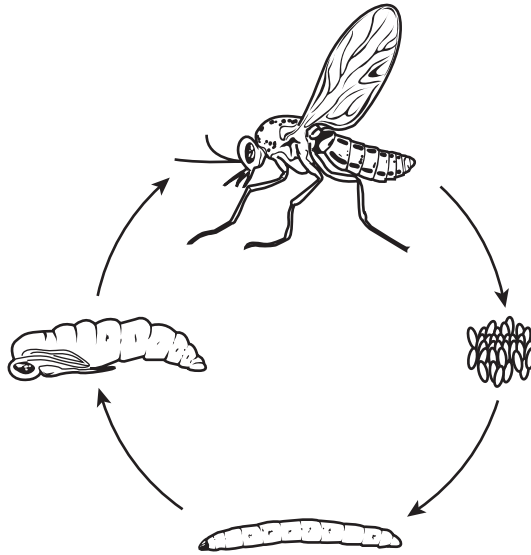
- A** Climate is the average weather in a region over a long period of time.
- B** Climate stays the same in many locations across the planet.
- C** Climate changes in each location from day to day.

**42** Which of these most help scientists find out when thunderstorms are about to happen?

- F** reflecting telescopes
- G** laser scanners
- H** weather satellites

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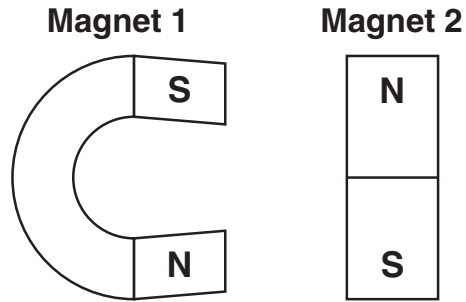
**43** The diagram shows an insect life cycle.



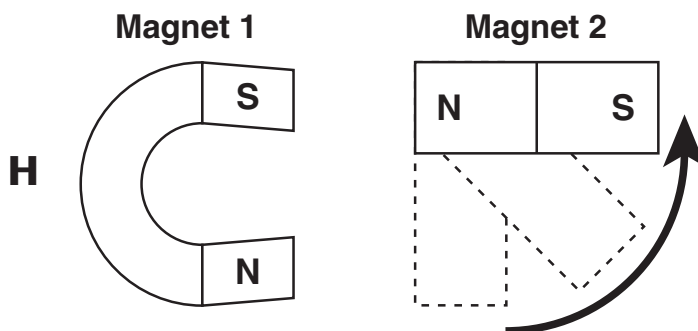
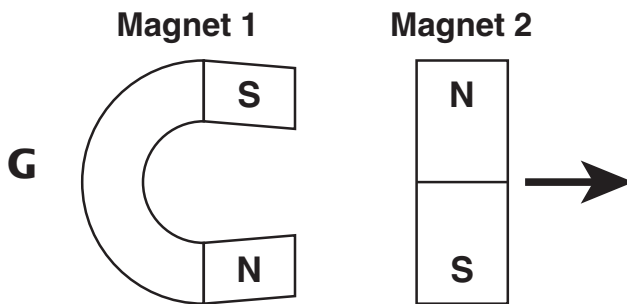
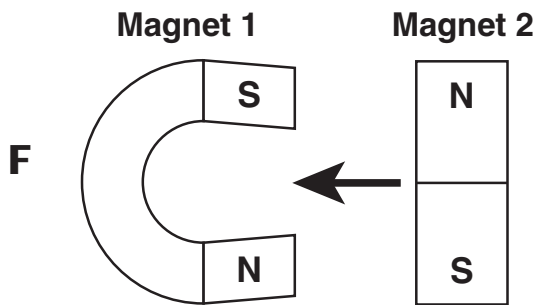
Which term describes the life cycle of this insect?

- A** complete metamorphosis
- B** incomplete metamorphosis
- C** seasonal metamorphosis

**44** The picture shows two magnets.

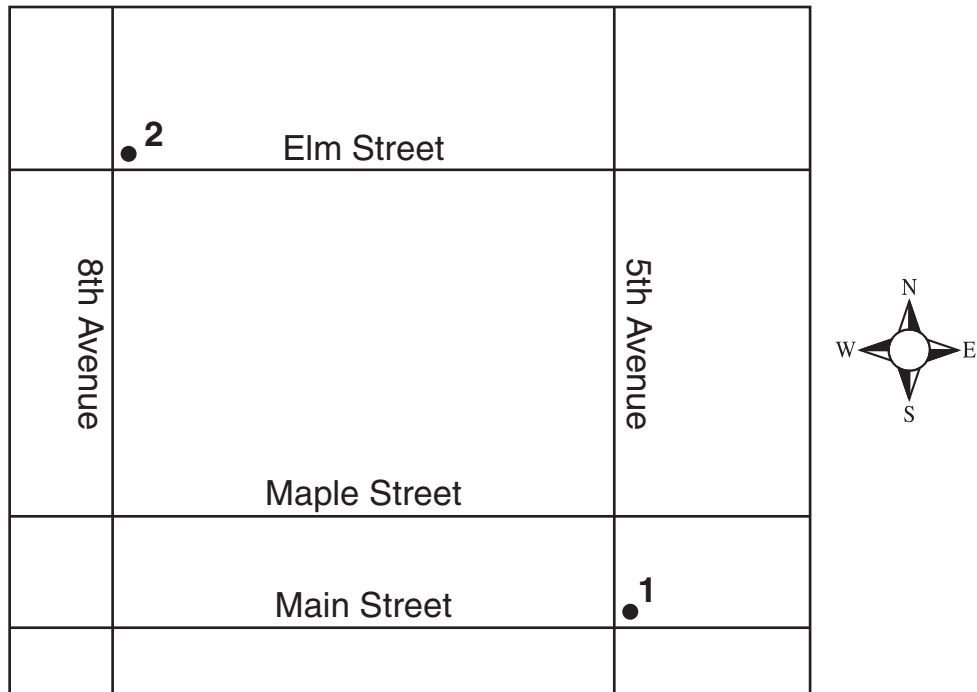


What will most likely happen to Magnet 2 if it is placed closer to Magnet 1?



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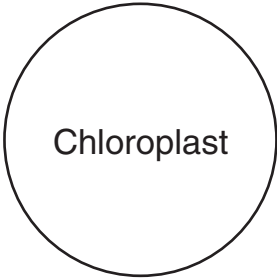
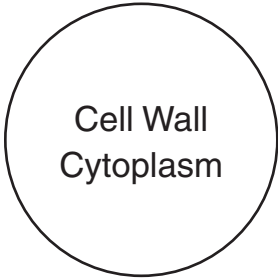
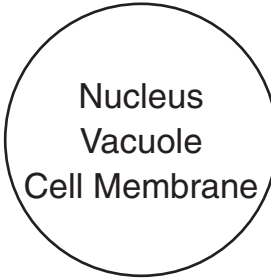
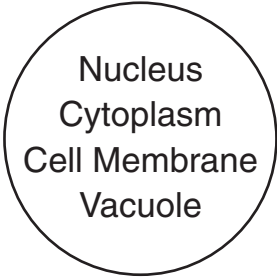
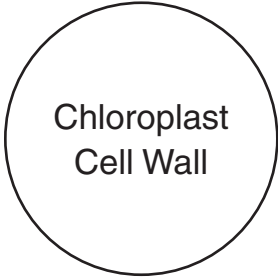
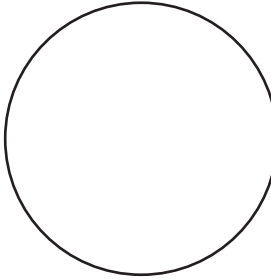
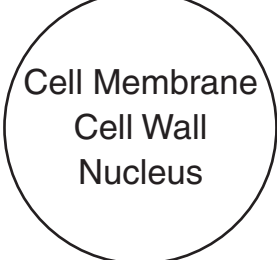
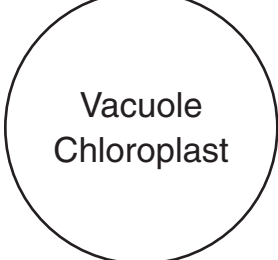
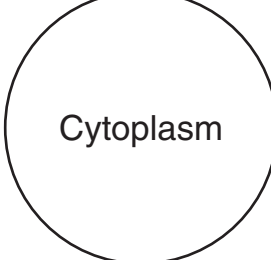
- 45** A woman walking through a city has a map. The woman is at Point 1 and wants to walk to Point 2.



In which two directions should the woman walk?

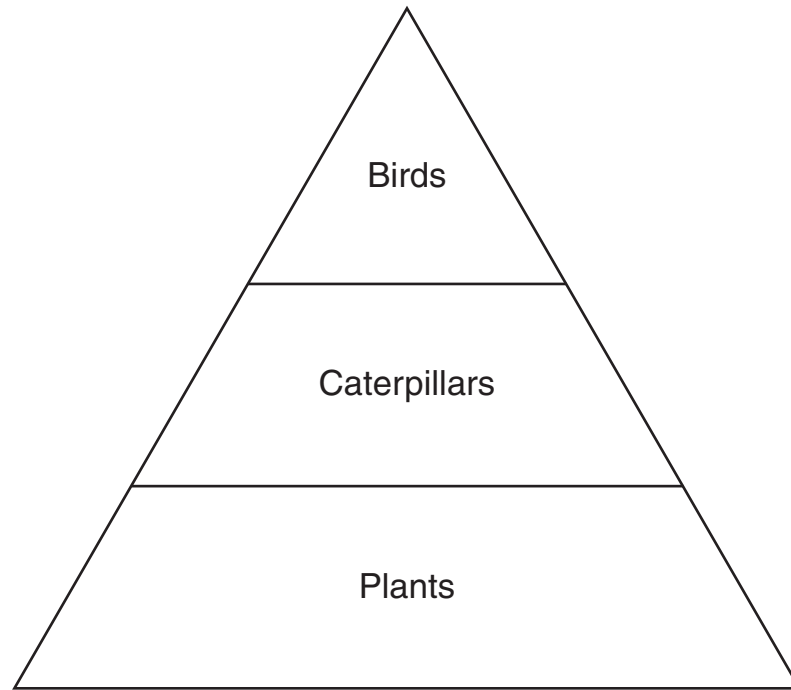
- A** south, then east
- B** north, then west
- C** east, then north

- 46** Which set of diagrams best compares parts that are in both plant and animal cells?

	<b>Both Plant and Animal Cells</b>	<b>Plant Cells Only</b>	<b>Animal Cells Only</b>
<b>F</b>			
<b>G</b>			
<b>H</b>			

*Go On ►*

**47** The diagram shows an energy pyramid.



**Which organisms in this pyramid are herbivores?**

- A** Birds
- B** Caterpillars
- C** Plants

- 48** Male peacocks use their colorful tail feathers to attract female mates.



Many male peacocks in a population get a disease that makes them lose their tail feathers. Which of these would most likely happen next?

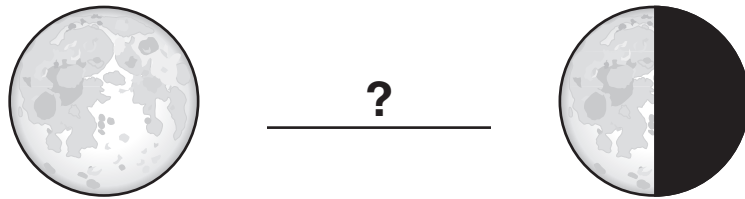
- F** Fewer young peacocks would hatch from eggs.
- G** Female peacocks would mate with other types of birds.
- H** Feathers on female peacocks would become brighter.

- 49** Which of these is a physical adaptation that best helps squirrels survive a long, cold winter?

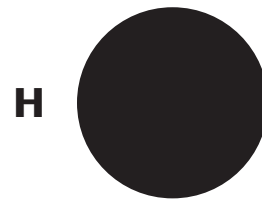
- A** climbing high through the branches of trees
- B** having small bodies covered with brown fur
- C** finding acorns buried in the fall

*Go On ►*

**50** The diagram shows two phases of the moon.



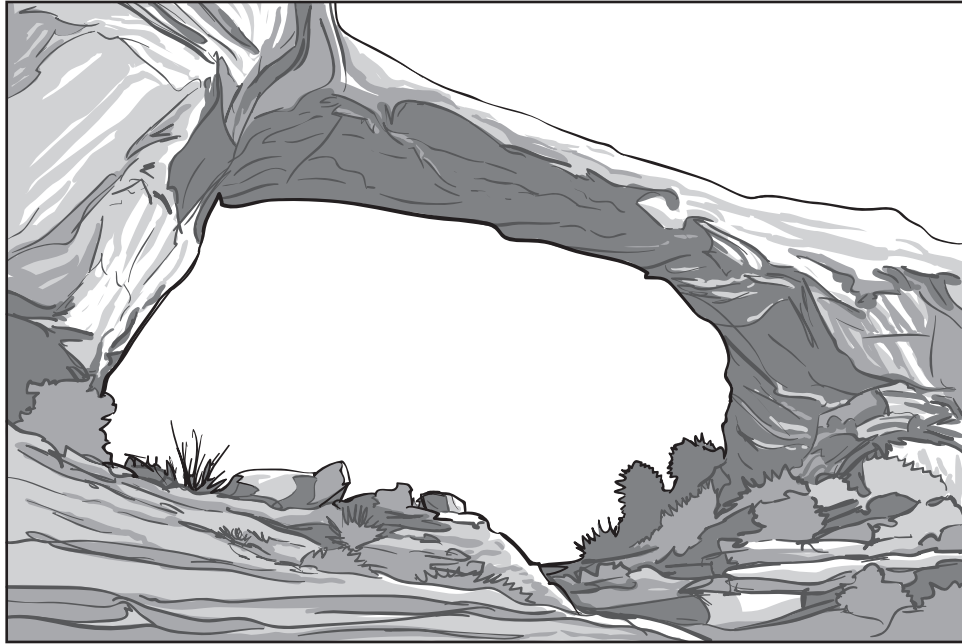
Which phase happens between these two phases?





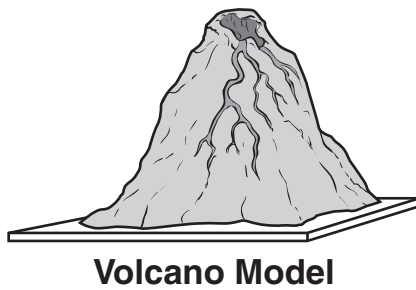
- 51** The picture shows a natural bridge of rock.

**Natural Bridge**



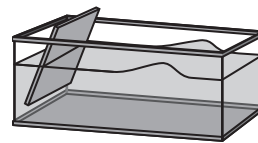
Which model shows how this natural bridge most likely formed?

**A**



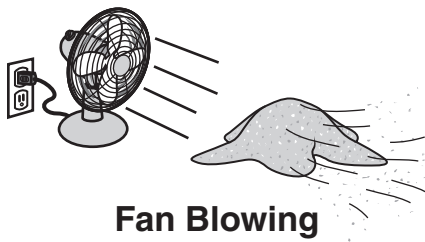
**Volcano Model**

**C**



**Wave Tank**

**B**



**Fan Blowing**

*Go On ►*

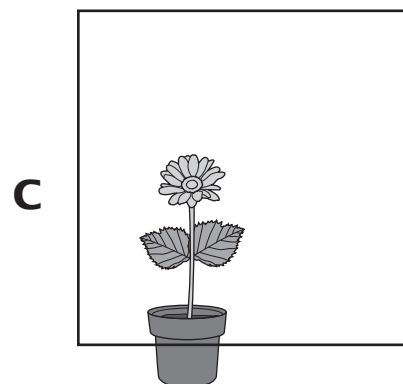
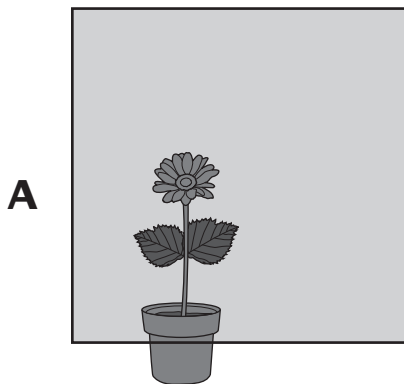
**52** Which units should a person use when measuring a large volume of water?

**F** meters

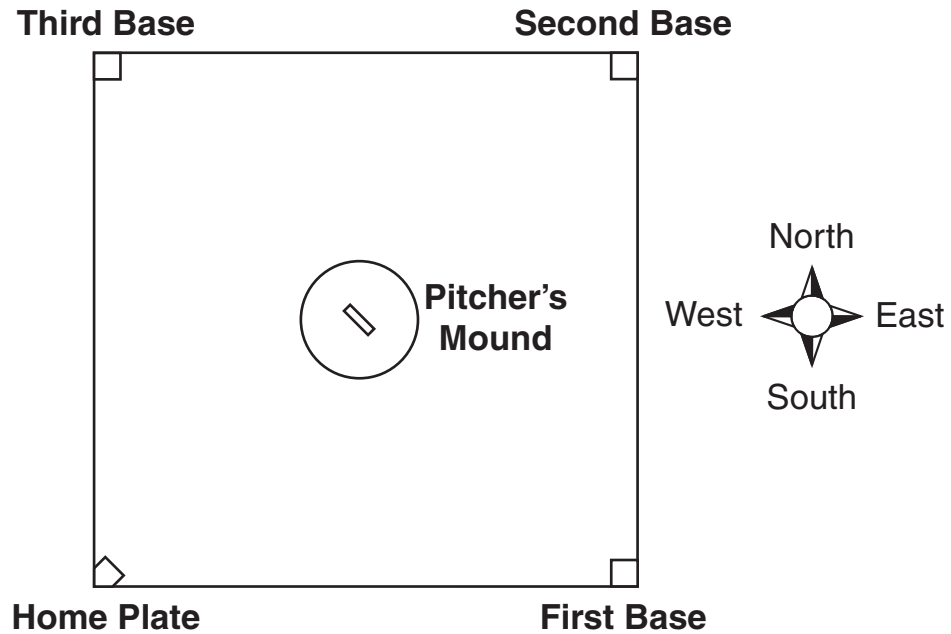
**G** grams

**H** liters

**53** A student put a flower in a pot behind three different squares. Which square is opaque?



- 54** The picture shows a baseball field.



A baseball player throws the ball from first base to third base. In which direction does the player throw the ball?

- F** northeast
- G** southeast
- H** northwest

*Go On* ►

- 55** The table shows how long it took three different students to run 100 yards.

**100-Yard Run Times**

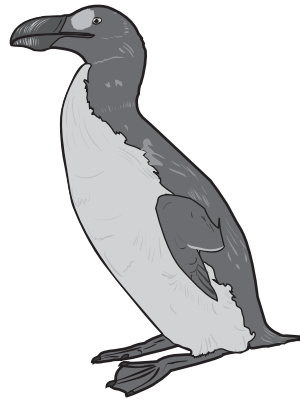
<b>Student</b>	<b>Time (seconds)</b>
1	18.5
2	21.3
3	19.8

**Which student ran the fastest?**

- A** Student 1
- B** Student 2
- C** Student 3

- 56** The picture shows a great auk. Great auks have been extinct since 1844.

**Great Auk**

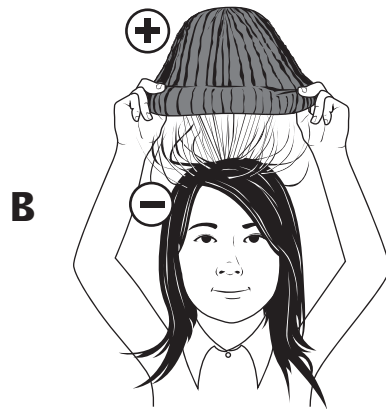
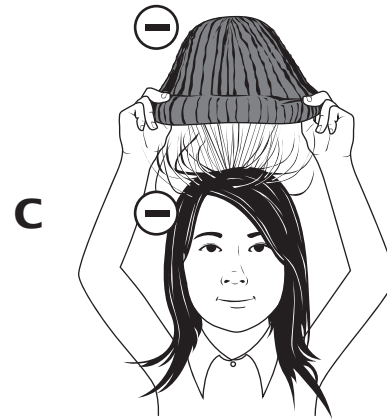
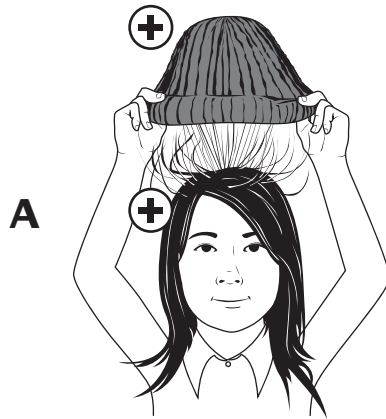


Great auks were a source of meat and eggs. Their feathers were used in hats. What is the most likely reason great auks are now extinct?

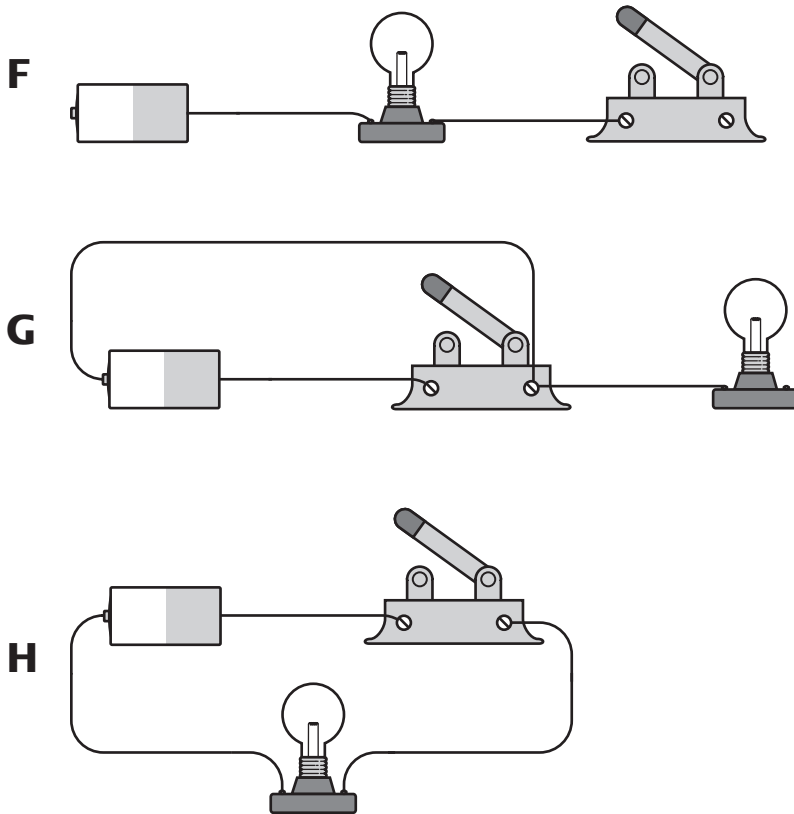
- F** too much hunting
- G** climate change
- H** disease

*Go On ►*

- 57** A student removes her wool cap. Some of her hair is attracted to the cap. Which picture best shows the static charges on both the cap and the girl's hair?



- 58** Which circuit is set up so that the bulb will glow when the switch is closed?



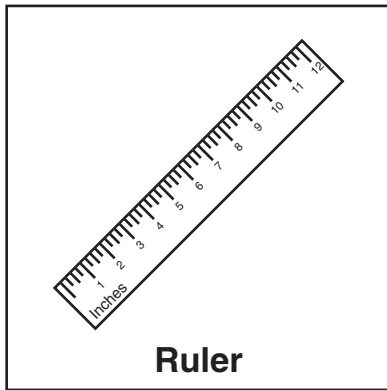
- 59** Why does the moon change phases?

- A** because the moon orbits Earth
- B** because the moon rotates on its axis
- C** because the moon casts a shadow on the sun

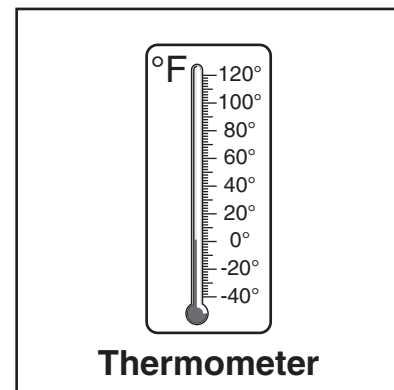
*Go On ►*

- 60** Students are trying to find the mass of a wooden block. Which tool should the students use?

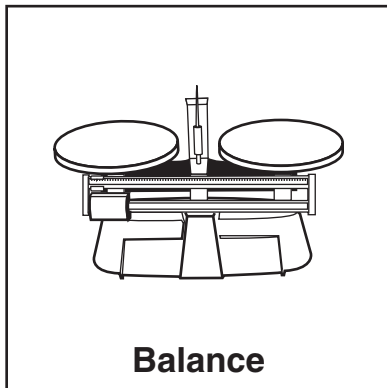
**F**



**H**



**G**





**61** The picture shows a mug.



Which term best describes this mug?

- A** transparent
- B** translucent
- C** opaque

**STOP** 

**DO NOT  
MARK  
ON THIS  
PAGE**

# Social Studies



## Part 1

**1** Which person decides court cases?

- A** judge
- B** teacher
- C** reporter

**2** Study the passage.

By the 1820s, the Cherokee had only [kept] 35,000 square miles, located in . . . Georgia, North Carolina and Tennessee . . . white settlers wanted the remaining land: Cotton could be grown and gold had been discovered.

— *The Trail Where They Cried*

As a result of these described events, the Cherokee were

- F** defeated in a war.
- G** forced into slavery.
- H** moved farther west.

Go On ►

**3 Why did many early colonists settle in Massachusetts?**

- A** to have religious freedom
- B** to receive a free education
- C** to escape paying debts

**4 Study the information.**

**Before the American Revolution**

In the 1600s and 1700s, children whose parents could afford to pay [teachers] had the best chance of receiving an education.

Source: NJ DOE

**After the American Revolution**

In 1828, the state studied . . . education. . . . Laws were [passed] to provide money for schools and require schools to be free to all children.

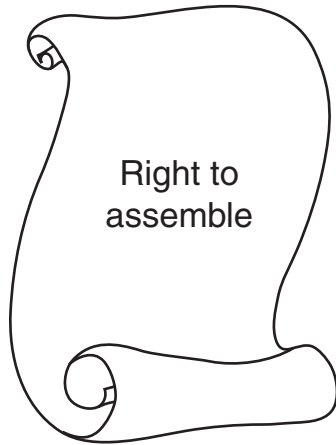
Source: NJ DOE

**Based on the information, how did education change after the American Revolution?**

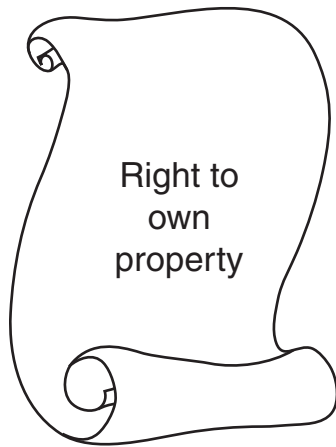
- F** Fewer children were taught basic skills.
- G** More children could get an education.
- H** Children learned mainly about math.

**5** Which right is protected by the First Amendment?

**A**



**B**



**C**



*Go On* ►

**6** Which issue most angered abolitionists before the Civil War?

- F** laws allowing the capture of runaway slaves
- G** California being admitted to the Union as a free state
- H** the election of Abraham Lincoln as president

**7** Study the drawing.



Mounds like this were built by Native Americans in

- A** Maine.
- B** Mississippi.
- C** Wyoming.

**8** Study the chart.

**Tennessee Top 3 Agricultural Products, 2010**

<b>Agricultural Products</b>	<b>Value of Sales in Thousands of Dollars</b>
1. Cattle	545,033
2. Chickens	475,589
3. Corn	287,307

Which product helped the Tennessee economy most in 2010?

- F** Cattle
- G** Chickens
- H** Corn

**9** Which group believed the land rightfully belonged to Native Americans?

- A** Quakers
- B** Puritans
- C** Anglicans

*Go On ►*

**10** Study the photograph.

**Tennessee Supreme Court**



© Dave Newman/Stockphoto #5488949

Which Tennessee leader would most likely work in the building shown in the photograph?

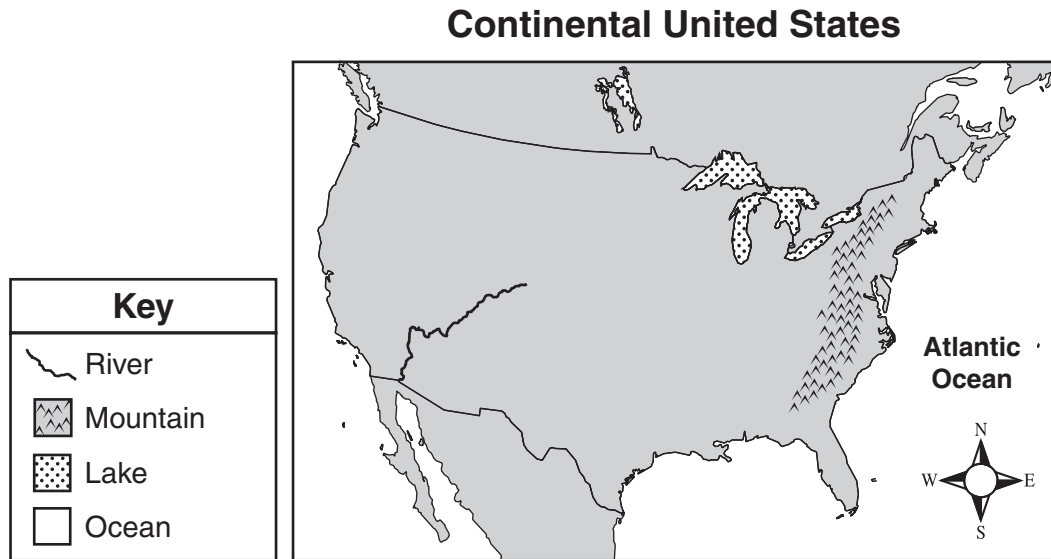
- F** state representative
- G** chief justice
- H** state senator

**11** Which group was most active in the fur trade with Native Americans in the 1800s?

- A** French
- B** Spanish
- C** Dutch



**12** Study the map.



Based on the map, the Appalachian Mountains are located west of the

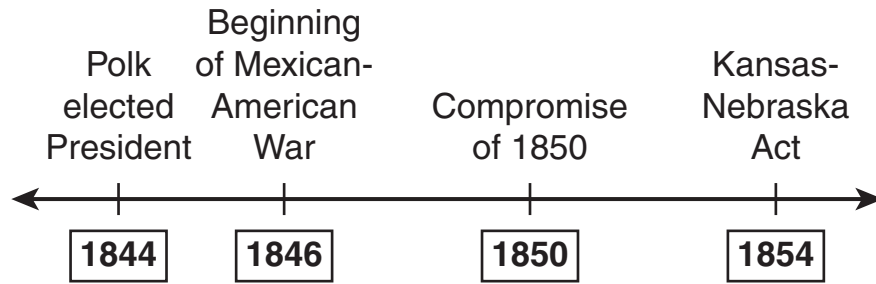
- F** Great Lakes.
- G** Colorado River.
- H** Atlantic Ocean.

**13** What made travel to eastern Tennessee difficult for settlers in the late 1700s?

- A** the Nashville Basin
- B** the Blue Ridge Mountains
- C** the Mississippi River

*Go On ►*

**14** Study the timeline.



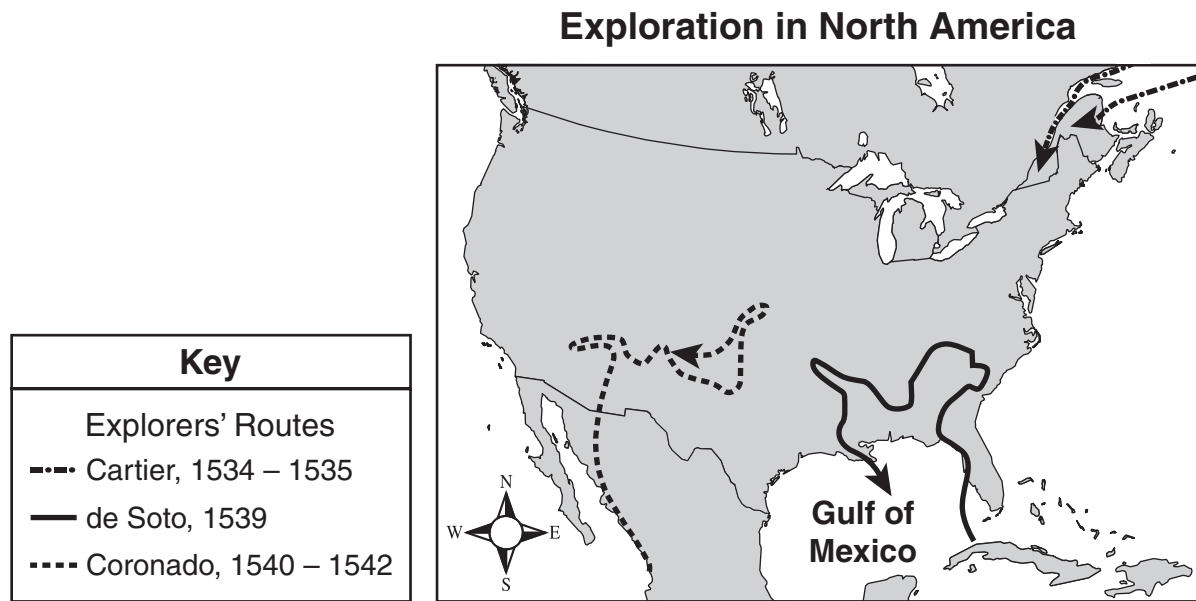
Based on the timeline, when was the Compromise of 1850 signed?

- F** before Polk was elected President
- G** before the passage of the Kansas-Nebraska Act
- H** before the start of the Mexican-American War

**15** What is one reason many towns were built along major rivers?

- A** Rivers were useful for shelter.
- B** Rivers were safe from natural disasters.
- C** Rivers were good for transportation.

**16** Study the map.



**Based on the map, which person explored the present-day southeastern United States?**

- F** Jacques Cartier
- G** Hernando de Soto
- H** Francisco Vázquez de Coronado

*Go On* ►

**17** Study the list.

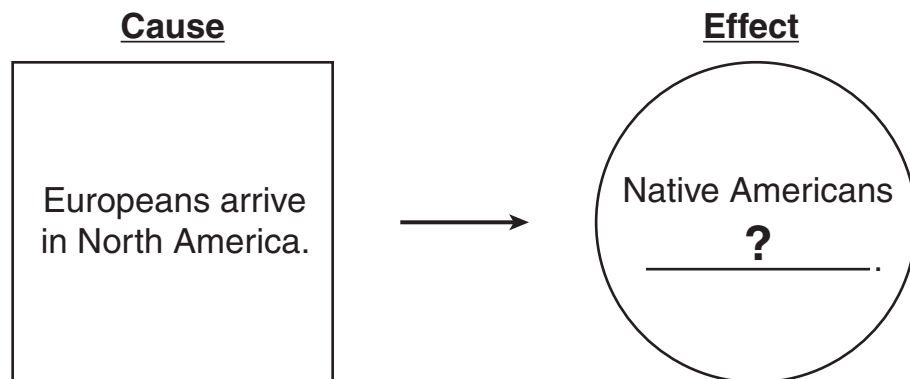
**John Sevier's Actions**

- Served as a soldier
- Served in the Tennessee State Senate
- \_\_\_\_\_ ?

**Which action completes the list?**

- A** Helped buy land from France
- B** Became a United States congressman
- C** Started the settlement of Texas

**18** Study the diagram.



**Which effect best completes this diagram?**

- F** traded fewer goods
- G** decreased in numbers
- H** stopped growing crops

**19** Which map shows where the Creek Indians lived in the 1500s?

**A**



**B**



**C**



*Go On* ►

**20** Study the song.

I am an Abolitionist!  
I glory in the name . . .  
I am a soldier for the war . . .  
To all be freedom given,  
That peace and joy may fill the land . . .  
A freeman will I live . . .

— *Song of the Abolitionist*, 1841

**Which statement supports the ideas in the song?**

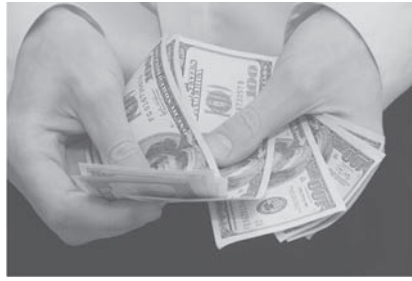
- F** Slavery is important to large plantations.
- G** Federal taxes are important to every nation.
- H** Slavery should be illegal.

**21** Which group first lived in the area that became Tennessee?

- A** Comanche
- B** Cherokee
- C** Apache

**22** Which picture shows the barter system being used?

**F**



© Alexander Kalina/  
iStockphoto #4381885

**G**



© Lisa F. Young/  
iStockphoto #3971020

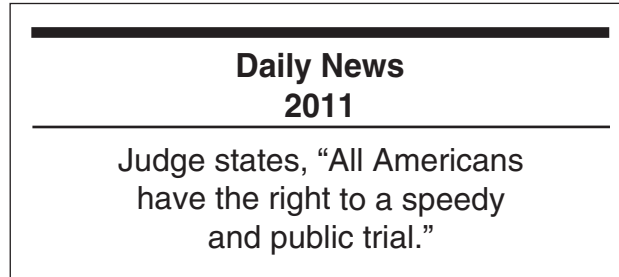
**H**



© Carmen Martinez Banús/  
iStockphoto #2922297

*Go On ►*

**23** Study the headline.



**Which amendment protects the right mentioned in this headline?**

- A** First Amendment
- B** Fifth Amendment
- C** Sixth Amendment

**24** Study the passage.

An early writer describes the Mission San Gabriel Arcángel:

The water . . . came down into the [valley] nearest to the mission, on the Angeles road . . . This [valley was thick with trees, but when] cleared . . . served to raise the first crops ever produced at the Mission . . .

**What did the people of the missions do to change the environment?**

- F** The road was improved so priests could travel easily.
- G** The water was drained away so buildings could be built.
- H** The trees were removed so that plants could be grown.



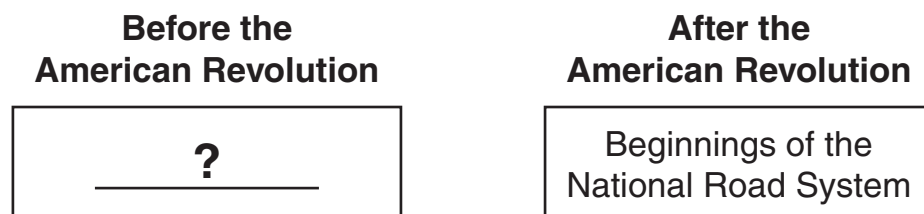
**25** Which protection is granted to U.S. citizens by the Eighth Amendment?

- A** right to a jury trial
- B** fair punishment for a crime
- C** right to own property

**26** Which river was important to the people of Boston, Massachusetts, long ago?

- F** Mississippi
- G** Charles
- H** Ohio

**27** Study the diagram.



Which phrase best completes this diagram?

- A** Steamboats transport people and goods up rivers.
- B** Canals are built to connect people and markets.
- C** Horses and wagons transport most goods to markets.

*Go On ►*

## 28 Study the list.

- Governor of Tennessee
- U.S. Congressman
- Supported annexation of Texas

Which person is described by this list?

- F** Andrew Jackson
- G** David Crockett
- H** James Polk

## 29 Study the document.

### U.S. Constitution



What was one reason this document was created?

- A** The first national government was not able to enforce laws.
- B** The first national government did not have an elected president.
- C** The first national government did not have a legislative branch.

**30** What was the purpose of the Mayflower Compact?

- F** to list important church rules
- G** to agree to form a plan of government
- H** to start new businesses

**31** Study the passage.

Former staff officers saw their commander as a candidate for the office of president. Old Hickory was a sure vote getter . . .

— Albert Marrin, 2004

Which political leader is being described in the passage?

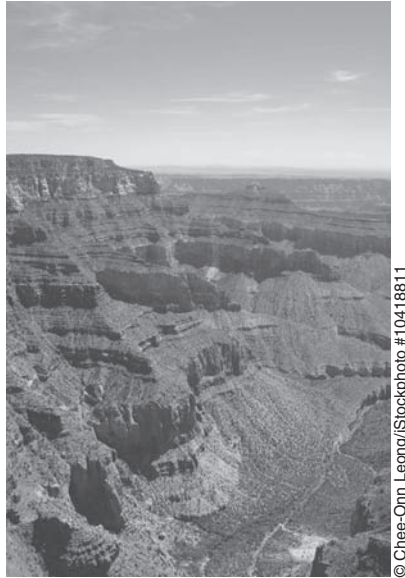
- A** Sam Houston
- B** Austin Peay
- C** Andrew Jackson

**STOP** 

## Part 2

**32** Study the picture.

**Grand Canyon**



**Which physical process is most important in forming the feature shown in this picture?**

- F** volcanic eruptions
- G** coastal flooding
- H** water erosion

**33** Which group most likely supported slavery before the Civil War?

- A** plantation owners
- B** northern leaders
- C** factory workers

**34** Study the passage.

On the morning of November the 17th, we [faced] a . . . snowstorm with freezing temperatures . . . the sufferings of the Cherokees were awful. . . . They had to sleep . . . on the ground without fire.

— John G. Burnett, 1838 – 1839

**Based on the passage, which did the Cherokee experience on the Trail of Tears?**

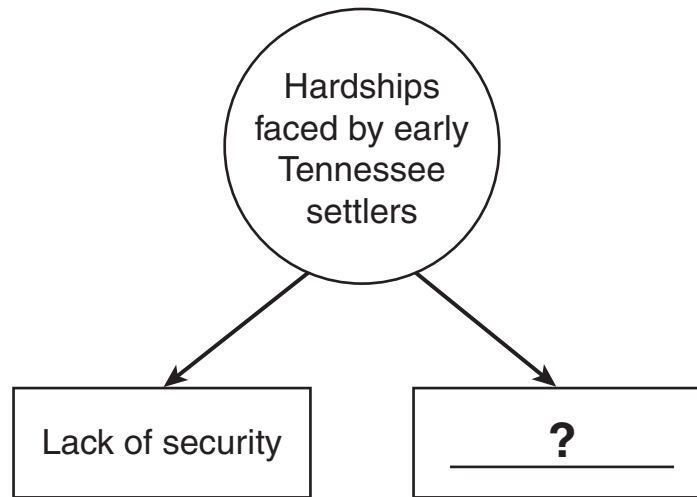
- F** bad weather conditions
- G** protection from soldiers
- H** wild animal attacks

**35** Which leader voted in Cherokee Nation council meetings?

- A** Sojourner Truth
- B** Nancy Ward
- C** Harriet Tubman

*Go On ►*

**36** Study the diagram.

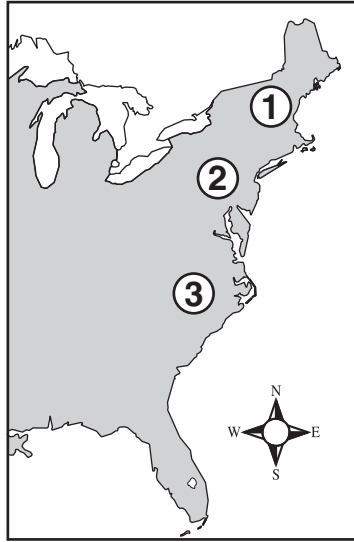


Which hardship best completes the diagram?

- F** High-priced farmland
- G** Isolated communities
- H** Few natural resources

**37** Study the map.

**Colonial America**

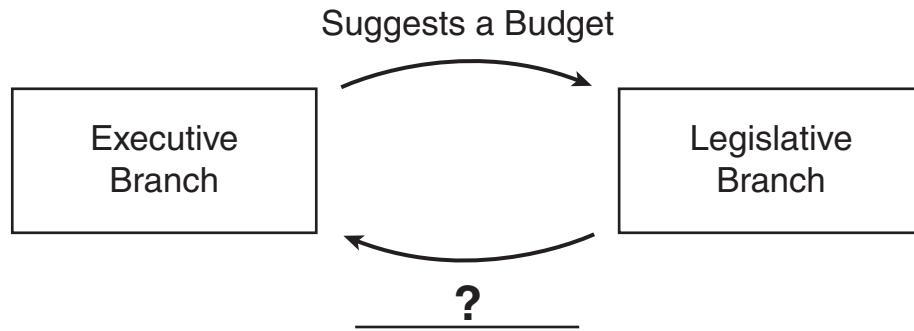


During the colonial period, which area grew tobacco?

- A** 1
- B** 2
- C** 3

*Go On* ►

**38** Study the diagram.



In the system of checks and balances, which check best completes the diagram?

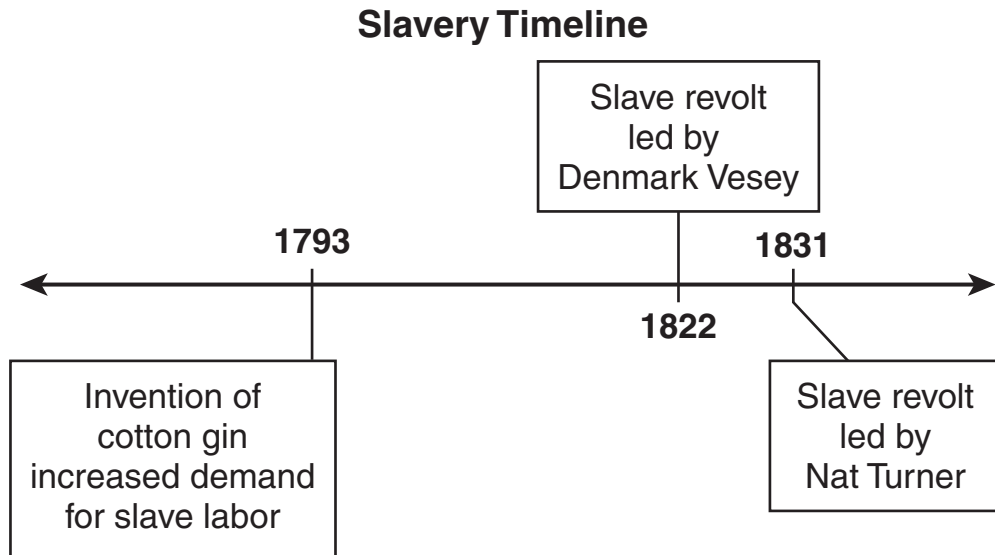
- F** Chooses Judges
- G** Controls Spending
- H** Interprets Laws

**39** The United States Constitution was written because there was a need for a

- A** national religion.
- B** transportation system.
- C** stronger government.



**40** Study the timeline.



**What information is shown on this timeline?**

- F** Slaves had more rights in 1793.
- G** Fewer states allowed slavery after 1822.
- H** The growth of slavery led to rebellion.

**41** What was one result of the expedition led by Lewis and Clark?

- A** trails to eastern lakes were made
- B** maps of western lands were drawn
- C** system to name plants was created

*Go On ►*

**42** Which group settled in Louisiana in the 17th century?

- F** the French
- G** the Spanish
- H** the Dutch

**43** Study the list.

For cutting off our Trade with all parts of the world:

For [setting] Taxes on us without our [agreement]:

For [not allowing] us in many cases, of the [right to] Trial by Jury . . .

— Declaration of Independence, 1776

**The list shows examples of how the King of England**

- A** refused to give colonists basic rights.
- B** was in favor of slavery in the colonies.
- C** depended on gold found in the colonies.

**44** Study the headline.

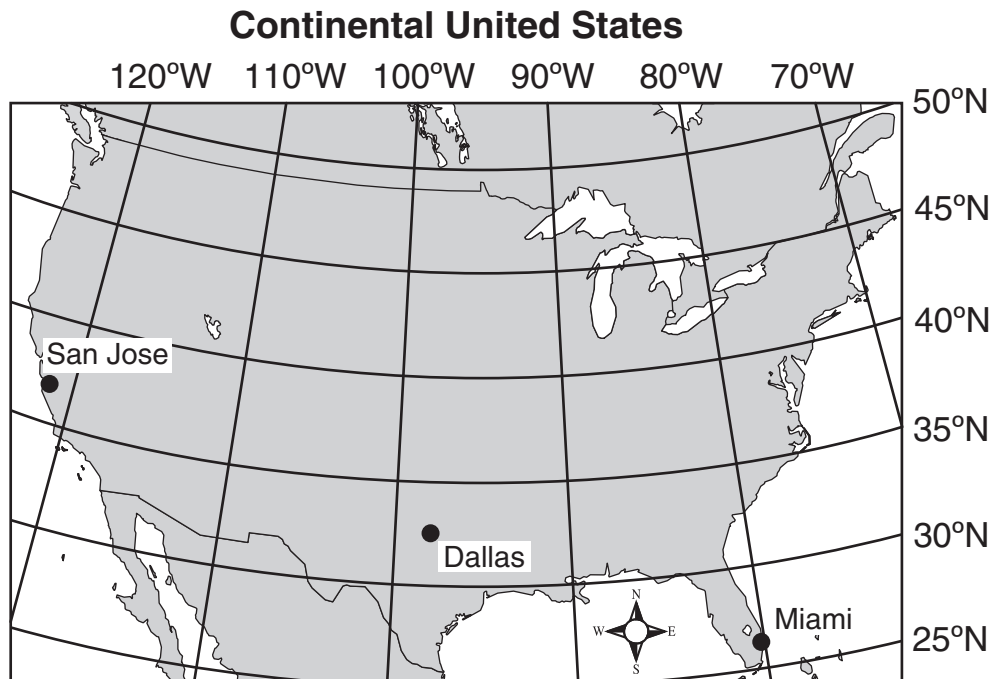
**Overflowing Rivers Add  
Nutrients to the Local Soil**

Which physical process most likely caused the events in the headline?

- F** heavy rains
- G** volcanic eruptions
- H** strong winds

*Go On ►*

**45** Study the map.



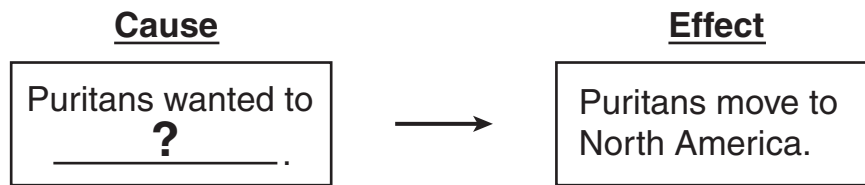
**Which city is located at 26°N and 80°W?**

- A** San Jose
- B** Dallas
- C** Miami

**46** Which leader served as the only governor of the State of Franklin?

- F** David Crockett
- G** John Sevier
- H** Andrew Johnson

**47** Study the diagram.



Which cause best completes this diagram?

- A** start new businesses
- B** go to better schools
- C** have freedom of religion

*Go On ►*

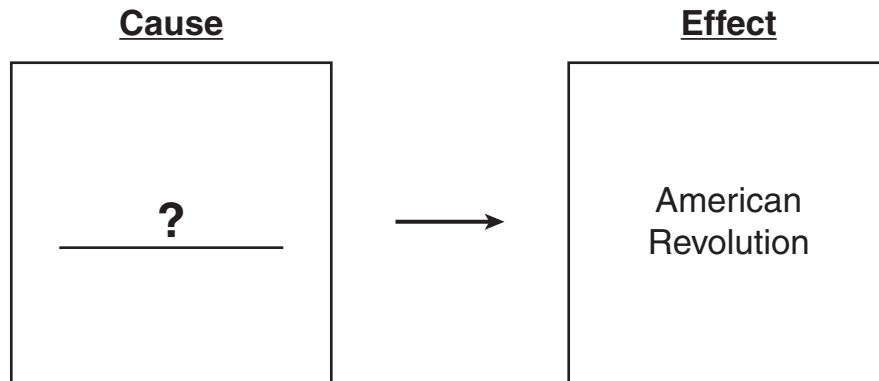
**48** Study the map.



Which number shows the state where the Mystic River is located?

- F** 1
- G** 2
- H** 3

**49** Study the diagram.



Which cause best completes this diagram?

- A** Forced quartering of British troops
- B** Laws that limited religious freedom
- C** Increased representation for colonists

*Go On ►*

**50** Study the list.

**Events in Tennessee History**

- Daniel Boone built a trail through the Cumberland Gap.
- Families started a settlement on the Watauga River.
- The new settlers created a government modeled on the laws of Virginia.

**This list shows how pioneers in Tennessee worked together to**

**F** protest unfair taxes.

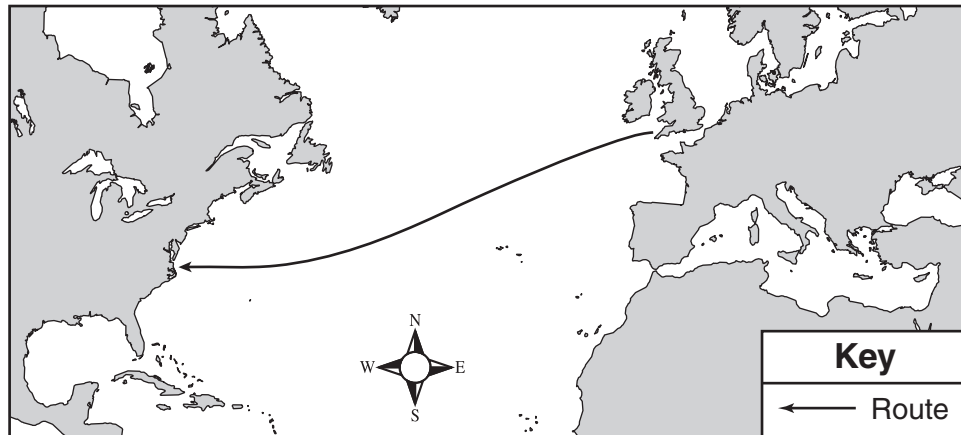
**G** grow better crops.

**H** establish a new state.



**51** Study the map.

**Route Used to Travel to North America**



Based on the map, indentured servants came to North America from

- A** Europe.
- B** Asia.
- C** Australia.

**52** The owner of a shoe store sold few shoes last month. The owner wants to sell more shoes this month.

How can the owner raise the demand for shoes?

- F** lower the prices
- G** add parking spaces
- H** increase store hours

*Go On ►*

**53** Before the American Revolution, why did many colonists want to move west of the Appalachian Mountains?

- A** to avoid attacks by native tribes
- B** to find new land for crops
- C** to discover oil resources

**54** Study the passage.

We [Native Americans] are about to take our final leave and kind farewell to our native land . . . It is the land of our Nation, and it is with [sadness] that we are forced by the [government] . . . to quit the [places] of our childhood . . .

— Letter from George Hicks to Chief John Ross, November, 1838

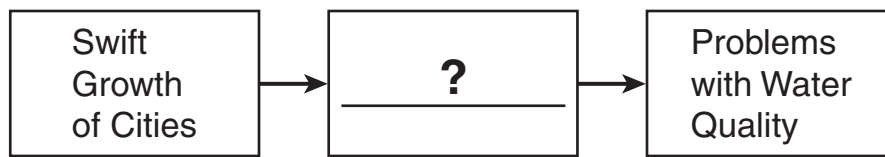
**Why did George Hicks and Chief Ross have to leave?**

- F** The federal government was taking tribal lands.
- G** Native Americans moved in search of new resources.
- H** Native Americans were unable to find food sources.

**55** Which Native American group lived in Tennessee before European exploration?

- A** Maya
- B** Aztec
- C** Creek

**56** Study the diagram.



Which phrase best completes this diagram?

- F** Little Rainfall
- G** Poor Trash Collection
- H** Empty Buildings

**57** What happened to the United States because of the Louisiana Purchase?

- A** Rules to join the Union were changed.
- B** Immigration from Europe went up.
- C** More natural resources became available.

*Go On ►*

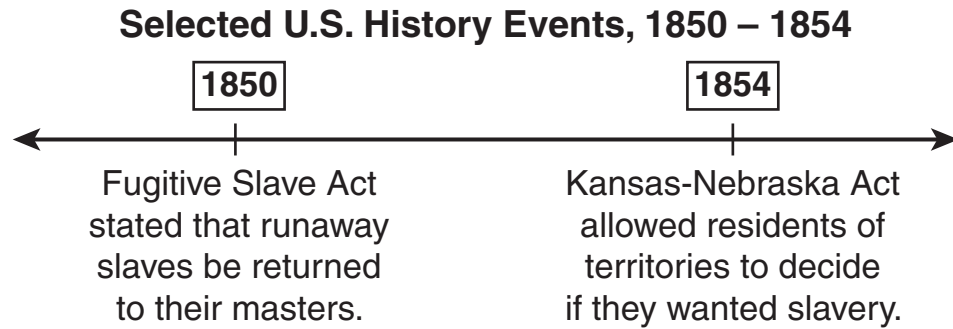
**58** How did states work together to fix problems caused by the Articles of Confederation?

- F** States asked the courts to change the government.
- G** States elected a new president to change the laws.
- H** State representatives attended a meeting to change the document.

**59** Which group helped start the state of Tennessee?

- A** Canadian trappers
- B** American pioneers
- C** Portuguese explorers

**60** Study the timeline.



**Which conclusion is supported by the timeline?**

- F** Slavery was an important issue at this time.
- G** Plantation owners wanted to end slavery.
- H** Slavery was allowed in every state.

**61** Study the declaration.

Only representatives of the people of these colonies are persons chosen . . . by themselves; and that no taxes ever have been . . . [charged to them] but by their . . . legislatures.

— Declaration of the Stamp Act Congress, 1765

**Colonists wrote this because of taxes on**

- A** corn.
- B** ships.
- C** paper.

**STOP** 

## Reading/Language Arts Answer Key

1	C
2	G
3	A
4	F
5	B
6	G
7	A
8	H
9	B
10	F
11	B
12	F
13	C
14	H
15	A
16	H
17	B

18	F
19	B
20	H
21	B
22	H
23	A
24	G
25	A
26	G
27	C
28	F
29	B
30	G
31	C
32	F
33	B
34	H

35	B
36	H
37	A
38	F
39	A
40	G
41	C
42	H
43	B
44	F
45	A
46	H
47	B
48	G
49	A
50	H
51	A

52	F
53	B
54	G
55	C
56	H
57	A
58	F
59	C
60	G
61	C
62	H
63	A
64	H
65	A
66	H

# Mathematics

## Answer Key

1	C
2	F
3	C
4	G
5	C
6	H
7	B
8	G
9	A
10	H
11	C
12	G
13	B

14	F
15	A
16	G
17	A
18	F
19	C
20	G
21	A
22	G
23	A
24	G
25	A
26	G

27	A
28	F
29	B
30	F
31	C
32	G
33	A
34	G
35	B
36	F
37	C
38	H
39	C

40	G
41	C
42	F
43	C
44	G
45	B
46	F
47	B
48	H
49	A
50	G
51	C

## Science Answer Key

1	C
2	G
3	A
4	H
5	B
6	H
7	C
8	G
9	A
10	F
11	B
12	H
13	C
14	G
15	A
16	H

17	A
18	H
19	A
20	F
21	B
22	G
23	C
24	H
25	B
26	H
27	A
28	G
29	A
30	H
31	A
32	H

33	B
34	H
35	B
36	G
37	C
38	G
39	B
40	H
41	A
42	H
43	A
44	F
45	B
46	G
47	B
48	F

49	B
50	F
51	B
52	H
53	B
54	H
55	A
56	F
57	B
58	H
59	A
60	G
61	A



## Social Studies Answer Key

1	A
2	H
3	A
4	G
5	A
6	F
7	B
8	F
9	A
10	G
11	A
12	H
13	B
14	G
15	C
16	G

17	B
18	G
19	A
20	H
21	B
22	G
23	C
24	H
25	B
26	G
27	C
28	H
29	A
30	G
31	C
32	H

33	A
34	F
35	B
36	G
37	C
38	G
39	C
40	H
41	B
42	F
43	A
44	F
45	C
46	G
47	C
48	G

49	A
50	H
51	A
52	F
53	B
54	F
55	C
56	G
57	C
58	H
59	B
60	F
61	C



# Tennessee Comprehensive Assessment Program

## Modified Academic Achievement Standards ~ Grade 4

### Practice Test

### Version B